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**Board of Public Utilities**  
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TELECOMMUNICATIONS

IN THE MATTER OF THE BOARD'S	)	
REVIEW OF UNBUNDLED NETWORK	)	DECISION AND ORDER
ELEMENTS RATES, TERMS AND	)	
CONDITIONS OF BELL ATLANTIC-NEW	)	
JERSEY, INC.	)	DOCKET NO. TO00060356

(SERVICE LIST ATTACHED)

**BY THE BOARD:**

**PREFACE**

This Decision and Order memorializes the decision rendered by the Board of Public Utilities ("Board") at its public agenda meeting of April 2, 2004, regarding the cost of capital and depreciation inputs used in calculating the rates for unbundled network elements ("UNEs") that Verizon New Jersey Inc. ("VNJ" or "the Company"), formerly known as Bell Atlantic- New Jersey, Inc., provides to competitive local exchange carriers ("CLECs"). The Decision and Order includes the Board's findings and determinations and directs VNJ to rerun its cost models within seven days of this Decision and Order in accordance with Board approved modifications, inputs and assumptions.

## **BACKGROUND AND PROCEDURAL HISTORY**

By way of Order issued on December 2, 1997,<sup>1</sup> the Board set initial rates, terms, and conditions for access to UNEs consistent with the Total Element Long Run Incremental Cost ("TELRIC") methodology articulated by the Federal Communications Commission ("FCC") in its Local Competition Order.<sup>2</sup> AT&T Communications of NJ, L.P. ("AT&T") and MCI Metro Access Transmission Services, L.L.C. ("MCI") challenged the Board's decision in the United States District Court for the District of New Jersey ("District Court").<sup>3</sup> On June 6, 2000, the District Court issued a decision that affirmed in part, reversed in part, and remanded in part issues addressed in the Generic Order.<sup>4</sup>

The Board's review on remand was completed and a decision on the remand was announced at a Board agenda meeting on November 20, 2001. The Final Order, issued March 6, 2002, adopted modified inputs and assumptions used in the cost models to calculate recurring and non-recurring rates, and established the terms and conditions under which certain advanced services would be made available to CLECs.<sup>5</sup> The Final Order reduced many of the wholesale rates that VNJ had been charging CLECs pursuant to the Generic Order. Following the release of the Board's Final Order, MCI, AT&T and the Division of the Ratepayer Advocate ("RPA") filed motions for reconsideration alleging that the Board had erred in rendering its decision and did not fully follow the FCC's TELRIC requirements and applicable law. After a review of the reconsideration requests, the Board rendered its decision on reconsideration at its July 15, 2002 agenda meeting, which was set forth by the Board in its Order on Reconsideration dated September 13, 2002.<sup>6</sup>

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<sup>1</sup> See Decision and Order, In the Matter of The Investigation Regarding Local Exchange Competition For Telecommunications Services, Docket No. TX95120631 (Dec. 2, 1997) ("Generic Order").

<sup>2</sup> Implementation of the Local Competition Provisions in the Telecommunications Act of 1996: Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket Nos. 96-98, 95-185, First Report and Order, 11 FCC Rcd 15499, 15616-775 (1996) ("Local Competition Order"), aff'd in part and vacated in part sub nom. Competitive Telecommunications Ass'n v. FCC, 117 F.3d 1068 (8th Cir. 1997) and Iowa Utils. Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), aff'd in part and remanded, AT&T v. Iowa Utils. Bd., 525 U.S. 366 (1999), on remand, Iowa Utils. Bd. v. FCC, 219 F.3d 744 (8th Cir. 2000), reversed in part sub nom. Verizon Communications Inc. v. FCC, 535 U.S. 467 (2002); Order on Reconsideration, 11 FCC Rcd 13042 (1996); Second Order on Reconsideration, 11 FCC Rcd 19738 (1996); Third Order on Reconsideration and Further Notice of Proposed Rulemaking, 12 FCC Rcd 12460 (1997), further reconsideration pending.

<sup>3</sup> See AT&T Communications of New Jersey, Inc., et al. v. Bell Atlantic-New Jersey, Inc., et al., Civ. Nos. 97-5762 (KSH) and 98-0109.

<sup>4</sup> See AT&T Communications of New Jersey, Inc., et al. v. Bell Atlantic-New Jersey, Inc., et al., Civ. Nos. 97-5762 and 98-0109 (KSH) (D.N.J. June 6, 2000).

<sup>5</sup> See Decision and Order, I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc., Docket No. TO00060356 (March 6, 2002) ("Final Order").

<sup>6</sup> See Decision and Order, I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc., Docket No. TO00060356 (September 13, 2002). ("Order on Reconsideration") at 9-12 (summarizing generally the parties' arguments for reconsideration).

Subsequent to the release of the Board's Order on Reconsideration, on November 7, 2002, VNJ filed a Complaint<sup>7</sup> in District Court pursuant to 47 U.S.C. §252(e)(6) of the Telecommunications Act of 1996.<sup>8</sup> The Complaint filed against both the Board and individual Commissioners in their official capacities (collectively referred to herein as the "Board"), consisted of three counts. Count One alleged that the UNE rates established by the Board failed to comply with the FCC's TELRIC methodology, as set out in the 1996 Act and its implementing regulations. Count Two alleged that the Board's UNE rates are below VNJ's actual costs and constitute an unconstitutional taking under the Fifth and Fourteenth Amendments to the United States Constitution. Count Three alleged that the Board's action further constituted a violation of VNJ's civil rights under 42 U.S.C. §1983. In its Complaint, VNJ requested that the case be remanded to the Board for further review of the inputs and assumptions used to develop the UNE rates for compliance with the FCC's TELRIC methodology. The Board filed an Answer to VNJ's Complaint on December 23, 2002.<sup>9</sup>

Subsequently, on November 26, 2003, VNJ Filed a Motion for Leave to File and Serve an Amended Complaint expanding its Complaint to include three additional counts. Proposed Counts Four and Five alleged that the UNE rates established by the Board violate the Fifth and Fourteenth Amendments on additional grounds. Proposed Count Six alleged that the UNE rates adopted by the Board in the Order on Reconsideration are inconsistent with the Board's findings and are arbitrary, capricious, and unreasonable. MCI, AT&T and the Board filed responses to the proposal by VNJ to amend its Complaint.

During the pendency of the litigation involving VNJ and the Board in the District Court, on August 21, 2003, the FCC released its Triennial Review Order,<sup>10</sup> providing new, additional guidance to states that may affect the UNE rates established by the states in following the FCC's TELRIC methodology. The FCC provided clarification on two key inputs used by states to set TELRIC-compliant rates: depreciation and cost of capital. On December 19, 2003, VNJ and the Board entered into a Stipulation and Agreement whereby VNJ and the Board agreed to seek leave of the District Court to dismiss VNJ's Complaint, without prejudice, in exchange for an expedited review by the Board of the above-mentioned inputs that were used to calculate the current rates associated with UNEs that VNJ is required to provide to CLECs.

In accordance with the terms of the Stipulation and Agreement, and following a December 17, 2003 agenda meeting announcing its decision, the Board issued an Order

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<sup>7</sup> Verizon New Jersey Inc. v. New Jersey Board of Public Utilities, et al., Civil Action No. 02-5353 (JAP). MCI filed a Counterclaim and a Cross-claim on December 20, 2002. VNJ and the Board filed Answers to MCI's Counterclaim and Cross-claim. By Orders dated March 21, 2003, the Court granted AT&T leave to intervene and RPA leave to participate as *amicus curiae*.

<sup>8</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified in various sections of 47 U.S.C. § 151 *et seq.* (the "1996 Act").

<sup>9</sup> On February 25, 2003, the Board filed a Motion to Dismiss Counts Two and Three. Supporting and responsive briefs were also filed with regard to that Motion to Dismiss Counts Two and Three.

<sup>10</sup> Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Federal Communications Commission, CC Docket Nos. 01-338, 96-98,98-147, Report and Order and Order on Remand, Further Notice of Proposed Rulemaking, (rel. Aug. 21, 2003) ("Triennial Review Order" or "TRO").

on December 23, 2003, directing the reopening of the “UNE proceeding to review the cost of capital and depreciation inputs that were relied upon by the Board in setting the current UNE rates.”<sup>11</sup> The Board’s Review Order also established a procedural schedule in accordance with the terms of the Stipulation and Agreement and designated Commissioner Connie O. Hughes as the Presiding Commissioner in this matter.<sup>12</sup>

On December 29, 2003, pursuant to Federal Rules of Civil Procedure 41(a)(2), VNJ filed with the Honorable Joel A. Pisano, U.S.D.J., a proposed form of Order of Dismissal, dismissing without prejudice VNJ’s Complaint in accordance with the terms of the Stipulation and Agreement entered into between VNJ and the Board, dismissing the Board’s pending motion to dismiss Counts Two and Three of the Complaint, dismissing VNJ’s pending motion for leave to file an Amended Complaint without prejudice, and ordering that the District Court shall retain jurisdiction to enforce all provisions and obligations set forth in the Stipulation and Agreement. On January 14, 2004, Judge Pisano entered an Order approving the terms of, and retaining jurisdiction to enforce, the Stipulation and Agreement.<sup>13</sup>

On December 29, 2003, AT&T filed a petition for reconsideration, reversal or modification of the Review Order,<sup>14</sup> and on December 30, 2003, MCI filed a motion for a stay of the Board’s decision to reopen the proceeding as set forth in the Review Order.<sup>15</sup> MCI requested that the Board hold all further proceedings in this docket in abeyance, and further sought a determination by the Board that when it reopens the UNE case, the proceeding will “include an examination of the cost model, all current inputs and other data needed to develop a current TELRIC rate, in accordance with applicable FCC requirements.”<sup>16</sup>

The Board conducted a thorough review of the arguments articulated by AT&T and MCI, including, MCI’s claim that the Board has no jurisdiction to reopen the UNE Proceeding; MCI’s claim that the Board must wait for the TRO proceeding to conclude; AT&T’s claim that the TRO does not justify reopening of this proceeding; AT&T’s and MCI’s claims that the Board’s review should be expanded and not limited to the issues of cost of capital and depreciation; AT&T’s and MCI’s claims that the procedural schedule set by the

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<sup>11</sup> See Order, I/M/O the Board’s Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc., Docket No. TO00060356 (December 23, 2003) (“Review Order”) at 3.

<sup>12</sup> Review Order at 4. On January 9, 2004, Commissioner Connie O. Hughes issued a provisional Order reflecting a revised procedural schedule which modified the dates by which parties were to file discovery and testimony. Order, I/M/O the Board’s Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey Inc., Docket No. TO00060356 (January 9, 2004).

<sup>13</sup> See January 14, 2004 Order issued by Judge Pisano in Verizon New Jersey Inc. v. the New Jersey Board of Public Utilities, et al., Civil Action No. 02-5353 (JAP). On April 1, 2004, Judge Pisano executed a Revised Order Dismissing Plaintiff Verizon New Jersey Inc.’s Claims Without Prejudice. The Revised Order confirmed that the January 14, 2004 Order was not intended to be a final appealable order.

<sup>14</sup> See AT&T’s December 29, 2003 Emergency Petition filed with the Board, for Reconsideration of Order Reopening Proceeding in Docket Number TO00060356 (“AT&T’s Motion for Reconsideration”).

<sup>15</sup> December 30, 2003 Letter Motion of MCI filed with the Board, to hold in abeyance all further proceedings in Docket Number TO00060356 (“MCI’s Motion for a Stay”) at 1.

<sup>16</sup> MCI’s Motion for a Stay at 1.

Board for the reopened proceeding is unworkable; and AT&T's claim that all parties to the UNE proceeding did not have an opportunity to comment on the scope of reopening.<sup>17</sup> By Order dated January 26, 2004, the Board denied AT&T's Motion for Reconsideration and MCI's Motion for a Stay in their entireties,<sup>18</sup> and continued forward with the reopened UNE proceeding.<sup>19</sup>

Active parties in the reopened UNE proceeding included the following: VNJ, the RPA, AT&T, and MCI. The Staff of the Board of Public Utilities ("Staff") was also active in the proceeding. VNJ submitted its pre-filed Initial testimony on January 6, 2004 and provided the cost models and supporting worksheets on January 8, 2004. Rebuttal testimony was filed on January 23, 2004 and VNJ's Surrebuttal testimony was filed on February 6, 2004. VNJ presented pre-filed testimony of the following witnesses: Dr. James H. Vander Weide on the cost of capital issues, Marsha S. Prosini on the issue of the Telcordia Switching Cost Information System ("SCIS") Cost Model sponsored by VNJ, David Garfield on the SCIS Cost Model and Dr. John M. Lacey on depreciation. AT&T presented pre-filed testimony of John I. Hirshleifer on the cost of capital issues, Michael R. Baranowski on the SCIS Cost Model and Richard B. Lee on depreciation. The RPA presented pre-filed testimony of James Rothschild on the cost of capital issues and Susan M. Baldwin on depreciation. MCI did not file or introduce testimony of any witness in this proceeding.

Evidentiary hearings were conducted before Commissioner Connie O. Hughes from February 17, 2004 through February 20, 2004. Following the close of evidentiary hearings, the parties filed their initial briefs on March 1, 2004 and filed their reply briefs on March 8, 2004.<sup>20</sup> Specifically, the following parties filed initial briefs: VNJ, the RPA, AT&T, MCI, Conversent Communications of New Jersey, LLC jointly with Covad Communications Company ("Conversent and Covad" or "CCNJ-CCC") and the Communication Workers of America ("CWA"). Only VNJ, the RPA, AT&T and MCI filed reply briefs.

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<sup>17</sup> See, Order Denying Motions, I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc., Docket No. TO00060356 (January 26, 2004) at 7-18. To the extent that AT&T and MCI have raised these and similar arguments in their Initial and Reply briefs in this proceeding, the Board incorporates by reference herein the same Discussion and Findings set forth in the Order Denying Motions.

<sup>18</sup> See, Order Denying Motions, I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc., Docket No. TO00060356 (January 26, 2004).

<sup>19</sup> The Board also continued forward with its separate TRO proceeding, I/M/O the Implementation of the Federal Communications Commission's Triennial Review Order, Docket No. TO03090705. However, subsequent to the decision issued by the United States Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") in United States Telecom Association v. Federal Communications Commission, No. 00-1012 (decided March 2, 2004), which vacated certain portions of the TRO, including the FCC's subdelegation to state commissions of decision-making authority over impairment determinations, VNJ filed a Motion for a Stay of the Board's TRO proceeding, except for the hot cuts related portion of the proceeding. By Order dated March 17, 2004, in I/M/O the Implementation of the Federal Communications Commission's Triennial Review Order, Docket No. TO03090705, the Board granted VNJ's Motion for a Stay conditioned upon VNJ's agreement to forebear seeking relief from the FCC on the basis that the Board did not timely complete its TRO obligations as specifically outlined in the Board's March 17, 2004 Order.

<sup>20</sup> Initial and reply briefs are referred to herein as "IB" and "RB," respectively.

The structure of this Decision and Order is intended to outline the issues raised in this proceeding, the positions of the parties, and the Board's discussion and findings, beginning with Cost of Capital, followed by Depreciation and then the issues raised regarding the SCIS Cost Model. The Ordering Clauses section provides in summary fashion, a listing of the determinations and directives made by the Board in this Decision and Order.

In rendering this Decision and Order, the Board **HEREBY AFFIRMS** all interlocutory decisions made by Commissioner Hughes during this proceeding.

## **COST OF CAPITAL**

### **Statement of the Issue**

In the capital intensive business of building and operating telecommunications networks, cost of capital and depreciation are two factors that greatly influence the results generated by pricing models.<sup>21</sup> They are crucial inputs used to develop appropriate TELRIC rates pursuant to the FCC's efforts to implement the 1996 Act<sup>22</sup> and open telecommunications markets, in part, through offering CLECs access to ILEC-owned network elements on an unbundled basis.

The groundwork for implementing the 1996 Act and the rules governing the determination of current UNE rates were enunciated in the FCC's Local Competition Order. That Order specified the minimum group of UNEs subject to access, established the TELRIC methodology as the one states must use to determine UNE rates and set forth rules to guide UNE proceedings.<sup>23</sup> In its subsequent TRO, among other things, the FCC clarified its guidance on what state commissions should consider in determining the appropriate forward-looking cost of capital and depreciation inputs to be used in TELRIC pricing models to arrive at compliant UNE prices.

The Board now considers the FCC's clarified guidance in its TRO and the parties' positions with regard thereto, starting with cost of capital. The weighted average cost of capital ("WACC") is obtained from three components: (1) cost of equity, (2) cost of debt and (3) the appropriate capital structure.

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<sup>21</sup> TRO at ¶¶671, 675.

<sup>22</sup> The 1996 Act, with particular attention to the requirement under section 251(c)(3) that ILECs make elements of their networks available on an unbundled basis to new entrants at cost-based rates. Section 251(c)(3) of the Act directs that ILECs must:

provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and section 252.

<sup>23</sup> Local Competition Order at 15616-775.

## Positions of the Parties

VNJ, through its witness Dr. James Vander Weide, proposed that the Board adopt a risk-adjusted cost of capital of 15.98% to be used in recalculating VNJ's UNE rates. VNJ argued that use of the 15.98% overall cost of capital would be consistent with the forward-looking economic costing principles established by the FCC. VNJ cited four basic economic principles enumerated by the FCC with which UNE rates should comply: (1) rates should be based on forward-looking economic costs; (2) rates should approximate the rates an ILEC would be able to charge in a competitive environment; (3) rates should provide correct economic signals for ILEC and CLEC investment decisions; and (4) rates should provide ILECs an opportunity to recover their forward-looking economic cost of providing UNEs. VNJ asserted that its proposed new cost of capital input will most appropriately reflect the new guidance given by the FCC in its TRO--that UNE rates incorporate a TELRIC-based cost of capital that reflects the risks of a fully competitive market rather than an unreasonably low monopoly-based cost of capital that fails to provide appropriate investment signals. VNJ IB at 5.

To calculate the TELRIC cost of capital for VNJ, Dr. Vander Weide recommended a capital structure of 25% debt/75% equity, a 6.26% cost of debt and a 13.95% cost of equity based on a single-stage Discounted Cash Flow ("DCF") model using a proxy group comprising the Standard and Poor's ("S&P") Industrials. Dr. Vander Weide's analysis yielded a forward-looking cost of capital for VNJ of 12.03% ( $25\% \times 6.26\% + 75\% \times 13.95\% = 12.03\%$ ). To reflect what he claimed is a "unique risk" under the TELRIC standard, Dr. Vander Weide proposed that an additional 3.95% regulatory risk premium be added to VNJ's WACC of 12.03% to arrive at his final risk-adjusted rate of 15.98%. VNJ IB at 8-9.

RPA's witness James Rothschild argued that use of the cost of capital inputs proffered by VNJ in this proceeding would result in UNE rates that are not TELRIC compliant and that would impede the development of future competition in New Jersey. RPA IB at 1. The RPA recommended that the Board adopt a WACC of 7.10% for VNJ based on: (1) a 9.5% cost of equity derived from a combination of DCF and risk premium/Capital Asset Pricing Model ("CAPM") results for VNJ; (2) a 6.06% cost of debt and (3) use of a 43.6% equity, 9.3% short-term debt and 47.1% long-term debt capital structure. RPA IB at 2.

AT&T's witness John Hirshleifer recommended that the Board adopt a WACC for VNJ of 8.23% based on: (1) a 10.33% cost of equity resulting from his analysis using both a three-stage DCF model and a risk premium/CAPM run; (2) a 4.65% cost of debt using Verizon Communications' ("Verizon") forward-looking debt costs and (3) a long-run target capital structure of 37% debt and 63% equity. AT&T asserted that its use of a proxy group of major telephone holding companies, rather than the S&P Industrials employed by VNJ, results in a "conservatively high measure of the returns demanded by investors to compensate for the competitive and regulatory risks facing VNJ as the wholesale supplier of UNEs in New Jersey." AT&T IB at 26.

MCI argued that the FCC's TRO gave no specific timeframe for reconsidering existing UNE rates and that it did not suggest that a review of existing UNE rates be limited only to cost of capital and depreciation inputs. MCI IB at 2-3. MCI concurred that the TRO expressed a concern that prior cost of capital computations did not adequately measure the risks of a competitive market assumed by TELRIC, but MCI asserted that the FCC also did not provide specific guidance "as to what this means, except that a cost of

capital that might be derived for a natural monopoly, such as a water utility, would not be appropriate for a TELRIC cost model.” MCI IB at 5. MCI recommended a 10% cost of equity, a 5% cost of debt and a 50%/50% debt/equity capital structure to arrive at a WACC of 7.5%.

Conversent and Covad did not file testimony in this proceeding; instead, they analyzed the filed positions of VNJ, the RPA and AT&T and recommended that the Board adopt either the 7.1% overall WACC advanced by the RPA or the 8.2% recommended by AT&T and reject what they characterized as the “exorbitant” 15.98% figure advanced by VNJ. Conversent and Covad supported the RPA’s recommendation that the Board adopt Verizon’s consolidated corporate capital structure and asserted that the cost of debt should include a mix of cheaper short-term and more costly long-term debt. Conversent and Covad also rejected VNJ’s notion that a special regulatory risk premium is warranted. They pointed out that: (1) no other state has adopted a risk premium, (2) it is VNJ who determines lease terms and (3) the premium “fails to account for the fact that Verizon does not make any incremental investment in UNE facilities in the first place, so there is essentially no investment to lose.” CCNJ-CCC IB at 15. Conversent and Covad conclude that the Board should reject this proposal. CCNJ-CCC IB at 15.

The CWA, representing approximately 3,000 VNJ employees and 65,000 employees overall in New Jersey, did not present any specific positions on cost of capital inputs; instead CWA addressed the overall need for a UNE rate increase and asserted that New Jersey’s “low UNE rates have provided incentives for Verizon to cut capital expenditure and workforce and for CLECs to shift resources from their own facilities to leasing UNE lines.” CWA IB at 2. CWA acknowledged that it did not conduct cost model runs but urged that UNE prices be raised significantly. CWA compared available 2003 spending data to calendar year 2001 spending and argued that VNJ has cut capital expenditures (58%) and workforce (34%) dramatically. CWA IB at 3.

CWA stated that “the entire infrastructure is eroding as Verizon has cut preventive maintenance, training, and monitoring.” CWA IB at 10-11. With regard to any additional revenues obtained through a UNE price increase, CWA argued: “Verizon should use the increased revenue to benefit New Jersey and not divert these resources to address other corporate concerns.” CWA IB at 11. CWA also urged the Board to obtain specific commitments from VNJ to ensure that new UNE rates would serve the public interest. CWA IB at 11.

#### **a. Cost of Equity**

In the absence of any comparable group of publicly traded firms that offer only UNEs, Dr. Vander Weide performed a single-stage DCF analysis on the S&P Industrials proxy group to obtain a cost of equity he believes appropriate for VNJ. The analysis yielded a cost of equity of 13.95%. VNJ asserted that this is a conservative estimate because the S&P Industrials do not face the risks that VNJ faces as a UNE provider and concluded that “Dr. Vander Weide’s DCF-derived [WACC], without any additional premium to encompass the incremental risk posed by the UNE leasing business, understates the true cost of capital for Verizon NJ as a provider of UNEs.” VNJ IB at 16-17.

To remedy this perceived understated accounting of UNE risk in the cost of equity resulting from his DCF analysis, Dr. Vander Weide introduced the concept of adding an



additional risk premium on top of the cost of equity derived from his DCF modeling of the S&P Industrials proxy group. In his testimony, Dr. Vander Weide cited five types of risks he deemed would be greater for VNJ's UNE business than for businesses encompassed by the S&P Industrials: operating leverage; demand uncertainty; rapidly changing technology; the regulatory environment; and lease cancellation. Among the primary reasons for this risk discrepancy, according to Dr. Vander Weide, are the S&P Industrials' lower investment in long-term fixed assets as compared with VNJ's network investment; the regulatory regime unique to VNJ's UNE business that "very likely will not allow it to cover the cost of its investment in network facilities" because of the way rates are reset and the requirement that VNJ serve competitors at what VNJ believes are below-cost rates so that these competitors can compete in the same retail markets, and risks associated with service provisioning and lease contracts. VNJ IB 17-19.

VNJ asserted that both AT&T and the RPA fail to account for the regulatory risk associated with the TELRIC standard and lease cancellation risk in their respective cost of capital estimates. Dr. Vander Weide contended that the DCF and CAPM employed by parties in this case "are inherently incapable of capturing the regulatory risks of the TELRIC standard" because those models do not reflect the type of risk flowing from a CLEC's option to cancel leases on short notice. VNJ IB at 18.

While generally asserting that added TELRIC-associated risks increase the overall level of risk VNJ faces, Dr. Vander Weide only attempted to quantify one risk—the lease cancellation risk—leading him to conclude that his risk premium is conservative. Dr. Vander Weide's approach emphasized the difference between a cancelable operating lease and a non-cancelable fixed rate financial lease equal to the expected economic life of the leased property. He compared the required rate of return on each type of lease and claimed that UNE contracts are effectively cancelable operating leases, which cause the risk to VNJ to be much greater than it would be if UNE contracts most closely resembled non-cancelable financial leases. VNJ argued that the UNE environment puts VNJ in a position of making large sunk network investments and if CLECs are able to cancel or renegotiate UNE contracts as lower cost technologies become available, VNJ could experience a decrease in revenues at the same time that investment and operating expenses remain unchanged. VNJ argued that such risks go beyond ordinary business risks and that VNJ has no means of tempering UNE risk. VNJ IB at 20. Dr. Vander Weide assigned this TELRIC risk a value of 3.95% so that, in his view, VNJ's appropriate WACC for use in UNE cost studies in New Jersey is 15.98% ( $12.03\% + 3.95\% = 15.98\%$ ). VNJ IB at 21.

Dr. Vander Weide further claimed that if the cost of capital input in the UNE TELRIC cost studies fails to incorporate this added regulatory risk premium, VNJ will not even have an opportunity to earn the 12.03% he calculated to be a fair rate of return on network investment based on the proxy group study. He concluded that without the added risk premium, there will be no incentive for VNJ or CLECs to invest in network facilities due to UNE under-pricing that does not fully reflect VNJ costs. VNJ IB at 21.

The RPA argued that use of the cost of capital inputs proffered by VNJ in this proceeding would result in UNE rates that are not TELRIC compliant and that would impede the development of future competition in New Jersey. RPA IB at 1. RPA witness Rothschild employed both multi-stage DCF and CAPM models performed on an "All-Industry Average" for the 900 largest companies in the United States included in the Business Week "Investment Outlook Scoreboard 2003" and to a group of

telecommunications companies to arrive at his recommendation of a 9.5% return on equity. Exhibit R-RPA-2 at 3, 20 and Schedule JAR 5, p. 5. Rothschild asserted that Dr. Vander Weide's approach improperly employed financial analysts' overly optimistic forecasts as a proxy for investors' long-term growth expectations and resulted in an overstatement of the growth rate and, hence, the cost of equity. RPA IB at 20.

AT&T witness Hirshleifer's approach to examining cost of equity differed from VNJ's in two key ways: (1) AT&T chose a proxy group comprising three regional Bell holding companies and two larger independent telephone holding companies, rather than the S&P Industrials and (2) AT&T chose to employ a three-stage, rather than single-stage, DCF model, because it believes the three-stage model better reflects long-term earnings growth rates. AT&T IB at 31. AT&T argued that Dr. Vander Weide's use of a one-stage DCF model is improper because it assumes that current short-term earnings growth rates projected for his proxy firms will continue in perpetuity. It further argued that those short-term rates exceed the long-run growth rate of the economy—an unsustainable assumption—and the Board should, therefore, not rely on Vander Weide's inflated single-stage DCF model results. AT&T IB at 41-45.

AT&T also viewed Dr. Vander Weide's regulatory risk premium to be an "extraordinary and unprecedented markup" to UNE rates and disputed the bases upon which VNJ advanced the regulatory risk premium concept. AT&T IB at 54. AT&T disagreed with Dr. Vander Weide's assertion that a regulatory risk premium is needed because the Board will not allow VNJ to recover sufficient depreciation. According to AT&T, the appropriate remedy for this lies in setting appropriate depreciation charges and not in inflating capital costs. AT&T IB at 54-55. AT&T also asserted that Dr. Vander Weide identified no new risks or costs that were not already reflected in the returns demanded by investors holding telephone holding company stock. AT&T IB at 55.

MCI recommended use of a 10% cost of equity, towards the lower range of what various witnesses have proposed in this proceeding, because the FCC has already ruled that ILECs are not required to unbundle next-generation network capabilities, and it contended that this would make the UNE network business less risky than it otherwise would be. MCI IB at 7-8. MCI also supported AT&T witness Hirshleifer's approach of using a three-stage DCF model as more reasonable than Dr. Vander Weide's use of a single-stage DCF model because "no company...can outgrow the economy as a whole ad infinitum." MCI IB at 8.

MCI also rejected the notion of an additional regulatory risk premium as proposed by Dr. Vander Weide, asserting that allowing VNJ a 15.98% rate of return on Dr. Vander Weide's proposed capital structure of 75% equity/25% debt would be the equivalent of granting VNJ a 31.2% return. According to MCI, UNE rates based on such a "staggering" number would make it impossible for CLECs to compete in New Jersey using UNEs. MCI IB at 9-10. MCI emphasized the importance of New Jersey's policy of maintaining UNE leasing as a viable CLEC option in that CLEC participation in the New Jersey market through UNEs is and will remain "an essential element of competitive entry" for many years and reliance on UNEs is endorsed by the 1996 Act despite what VNJ's goals for UNEs may be. MCI IB at 9-10.

Conversent and Covad argued that as the Board considers the risks attendant to participating in the type of market TELRIC assumes, the Board needs to carefully consider exactly what kind of risk VNJ would experience in such a market and

maintained that the TRO “does not require the Board to adopt the legal fiction that Verizon will face more competition than is plausible for the foreseeable future, but only that the cost of capital must reflect the competitive risks that are associated with the market for provisioning UNEs.” CCNJ-CCC IB at 1-2. Conversant and Covad asserted that “Verizon still bears the burden of demonstrating with specificity the competitive risks they will face in a TELRIC based market” and that “Verizon’s track record in this regard is poor.” CCNJ-CCC IB at 2.

In recommending that the Board choose the cost of capital cited by the RPA or AT&T, Conversant and Covad cautioned that using an inflated cost of capital would cause UNE prices to be too high and would, therefore, deter competition, encourage inefficient construction of bypass facilities and generate improper subsidies for VNJ. CCNJ-CCC IB at 4. Conversant and Covad also argued that no basis exists for accepting VNJ’s proposal for an added regulatory risk premium to its cost of equity. Conversant and Covad further stated that no other state commission has accepted this proposal and asserted that VNJ’s explanation of its increased risk exposure due to CLEC leases is especially problematic because it is VNJ who chooses to go month-to-month, and VNJ does not even offer CLECs the option of a long-term contract. Further, according to Conversant and Covad, should a CLEC cancel a UNE lease, the facilities in most cases would then be available/used to serve VNJ retail customers or perhaps even serve the same customer if it switched to VNJ or another CLEC for service, generating perhaps a higher return for VNJ rather than a loss. CCNJ-CCC IB at 14-15.

#### **b. Cost of Debt**

Dr. Vander Weide recommended a 6.26% cost of debt based on his review of the average yield-to-maturity on Moody’s A-rated industrial bonds effective April 2003, as reported in the Mergent Bond Record. VNJ IB at 15. VNJ noted that its 6.26% lies within 20 basis points of the figure used by the RPA. VNJ argued that the industrial bond average best approximates the costs VNJ would face if it were to issue debt to finance new network construction. To further test the reasonableness of his recommended 6.26% cost of debt, Dr. Vander Weide calculated the average interest rate Verizon actually pays on its outstanding debt issues as of September 30, 2003 and found that result to be 6.8%. VNJ IB at 15.

The RPA focused on the idea that since the cost of capital must be forward-looking, it should reflect the costs of debt that a company now purchasing new telecommunications network equipment would face. To derive a long-term cost of debt, RPA witness Rothschild cited a current cost rate for VNJ long-term debt issuance of 6.06% based on a 30-year U.S. Treasury bond rate of 4.89% and added to that an interest rate spread between U.S. Treasury bonds and A2-rated corporate debt. Rothschild crosschecked that proxy figure by reviewing the actual cost of a Verizon-NY non-callable bond maturing in 2030 that has a yield of 6.088%. RPA IB at 22. Rothschild used Verizon’s actual cost of short-term debt of 1.14% as reported in discovery responses.<sup>24</sup> RPA IB at 22.

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<sup>24</sup> VNJ’s response to RAR-ROR-3 stated that the current cost of short-term debt for VNJ was 1.133% and the current cost of short-term debt for parent Verizon Communications was 1.135%.

AT&T's witness Hirshleifer computed a 4.652% cost of debt for use in UNE pricing. He arrived at the cost of debt using the yield-to-maturity of all publicly traded bonds issued by Verizon and its subsidiaries. AT&T IB at 52. AT&T asserted that the 4.652% debt cost is more appropriate than VNJ's 6.26% debt cost because Hirshleifer relied on Verizon debt, which is currently rated A+, rather than the more costly A-rated debt Dr. Vander Weide used, which AT&T asserted caused him to overstate the debt costs of a company with Verizon's risk profile. AT&T IB at 52.

MCI supported the inclusion of short-term debt in any calculation of the cost of debt and argued that a cost of debt in the 5% range would be "more than compensatory" if the Board reviews Verizon's current debt expense. MCI IB at 9. Conversent and Covad asserted that it is appropriate to include cheaper short-term debt in the calculations and supported the RPA's approach on cost of debt. CCNJ-CCC IB at 11-12.

### **c. Capital Structure**

Informed by what he asserted is the FCC's guidance in its TRO, that the cost of capital and depreciation inputs for UNE pricing should reflect the risks of a market with full facilities-based competition, Dr. Vander Weide chose the S&P Industrials as a reasonable proxy for determining cost of capital inputs for VNJ's UNE pricing model because they are a large group of firms with an average composite risk operating in competitive markets. Dr. Vander Weide judged that this sample would generate more reliable results in DCF and CAPM analyses as compared with the use of the small available sample group of comparable telecommunications holding companies that have experienced "radical restructuring and technological change." Exhibit R-VNJ-14 at 71. VNJ asserted, however, that the S&P Industrials as a group are subject to "considerably less business risk than is Verizon NJ as a provider of UNEs," making Dr. Vander Weide's analysis of risk very conservative. VNJ IB at 11. VNJ also referenced the acceptance of the Verizon witness' use of the S&P Industrials as a proxy for the UNE business of Verizon operating companies in other states such as Massachusetts, Pennsylvania and Virginia. VNJ IB 12-13.

Dr. Vander Weide calculated a market value capital structure for VNJ based on recent and five-year capital structure data for the S&P Industrials proxy group and for a group of telecommunications companies with ILEC subsidiaries. According to Dr. Vander Weide, the data indicated both groups had capital structures containing, on average, 75% equity or more, and he concluded that a 75% equity/25% total debt capital structure would be appropriate for VNJ. He also noted that the chosen capital structure was somewhat conservative in that he employed a total debt ratio that included both long- and cheaper short-term debt. According to VNJ, had Dr. Vander Weide excluded short-term debt, he would have arrived at an even lower percentage of debt in the capital structure of proxy companies, thereby increasing the equity portion of the ratio. VNJ IB at 14.

The RPA asserted that VNJ improperly employed a capital structure that relied on the market value of equity capital which is neither forward-looking nor TELRIC compliant. Instead, the RPA maintained, the appropriate capital structure to be used in UNE pricing under the TELRIC scheme is the one chosen by the parent Verizon management team to actually finance Verizon's telecommunications operations. The RPA maintained that using such an actual book value capital structure that seeks to minimize the long run

overall cost of capital is the only way to comply with the FCC's TELRIC requirements. RPA IB at 21.

AT&T asserted that the appropriate capital structure "should reflect the efficient forward-looking market-weighted capital structure that an efficiently managed firm in the appropriate line of business would seek to achieve over the long run." AT&T IB at 53. In contrast, AT&T viewed VNJ's proposed capital structure as being based on a short-run snapshot of S&P Industrials' and telecommunications companies' average market capitalization for a recent five-year period. AT&T recommended that the Board adopt a long-term capital structure of 37% debt and 63% equity. ATT IB at 53-54.

MCI recommended that the Board use a 50%/50% debt equity structure for VNJ because it believed that a company seeking to build a wholesale telephone network would seek to raise capital in a cost-minimizing way and the relatively high cost of equity capital would render VNJ's proposed 75% level of equity implausible. MCI IB at 5-6.

With respect to capital structure, Conversent and Covad agreed with the RPA that the consolidated capital structure actually implemented by Verizon Communications' management is an appropriate proxy for UNE pricing and is the most reliable on which to base the cost of capital. CCNJ-CCC IB at 6. Conversent and Covad referenced the Board's Final Order, whereby the Board cited the RPA's argument that "consolidated capital structure is an actual capital structure where full arms-length transactions between the public debt and equity investors is reflected."<sup>25</sup>

## Discussion and Findings

The Board previously set the allowed rate of return for VNJ's provision of UNEs at 8.82% derived from a cost of equity of 10%, a cost of long-term debt of 8.07% and a capital structure consisting of 60.94% long-term debt and 39.06% common equity.<sup>26</sup> Again, in this case, the parties proposed the cost of capital for a single business segment—UNEs—priced under the complex hypothetical principles known as TELRIC.

The Board determined to review its previous rulings on cost of capital in response to the FCC's guidance that clarified the factors to be considered in setting the cost of capital for UNEs. As set forth above, in response, VNJ, the RPA, AT&T, and other parties to this proceeding provided testimony and/commentary on the cost of capital. The parties and their filed positions are summarized in Table 1.

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<sup>25</sup> Final Order at 37.

<sup>26</sup> Id. at 39-40.

Table 1 – Filed Cost of Capital Positions of the Parties							
	Overall Cost of Capital	Cost of Equity	Cost of Debt		Capital Structure		
			Long-Term	Short-Term	Equity	Short-Term Debt	Long-Term Debt
<b>VNJ</b>	15.98% 12.03+3.95	13.95% (19.21% effective)	6.26%		75%	--	25%
<b>RPA</b>	7.10%	9.5%	6.06%	1.14%	43.6%	9.3%	47.1%
<b>AT&amp;T</b>	8.23%	10.33%	4.65%	--	63%	--	37%
<b>MCI</b>	7.5%	10%	5%( w/ some short-term)	--	50%	--	50%
<b>CWA</b>	Urged UNE price increase with no specific positions on cost of capital inputs.						
<b>Conversent/ Covad</b>	Supported RPA or AT&T position	Supported RPA or AT&T position	Supported RPA position	Supported RPA position	Supported RPA position	Supported RPA position	Supported RPA position

The range of recommendations provided by the witnesses in this case is unusually wide compared with traditional rate cases involving a utility's cost of capital. For example, while litigating parties in traditional rate cases often present the Board with recommendations of equity costs that vary by, at most, 500 basis points, in this UNE case, recommendations on effective cost of equity varied by almost 1000 basis points. The Board notes that VNJ has proposed a markedly higher WACC in this proceeding than in the previous UNE case. VNJ witness Dr. Vander Weide concluded that VNJ should be afforded an opportunity to earn a WACC of 15.98% which, when taking into account his "regulatory" risk premium, leads to an imputed cost of equity of 19.21%, a cost of long-term debt of 6.26% with a capital structure of 25% long-term debt and 75% common equity, virtually identical to his proposed capital structure in the prior case. Transcript of February 20, 2004 at 765. The difference can be almost totally explained by a single new concept introduced by Dr. Vander Weide: namely, a 3.95% risk premium associated with the "unique" risk faced by VNJ as a result of UNE customers having the ability to leave VNJ's network whenever it is to their economic advantage to do so under the TELRIC pricing regime. The implicit requested cost of common equity of 19.21% is unprecedented in New Jersey and requires the Board to critically review it since it would have a material impact on the ultimate UNE rates that will need to be calculated in this case.

The Board observes that the discussion of these same issues—finding the appropriate cost of equity, cost of debt and capital structure to establish a cost of capital for UNEs—has taken place in other Verizon state jurisdictions. Since the TRO was adopted by the FCC on February 20, 2003, four state commissions issued decisions, and one state

deferred to the FCC to complete arbitration.<sup>27</sup> The decisions in those states are of interest to the Board for the purpose of trying to better understand the conflicting arguments presented by the parties as well as the divergent decisions; however, the totality of the record developed in New Jersey in this proceeding and the Board's expertise in examining cost of capital issues govern this decision.

In his initial testimony, Dr. Vander Weide identified five separate types of risk encountered by VNJ in providing UNEs in New Jersey under competitive market conditions: (1) operating leverage, (2) demand uncertainty, (3) technological change, (4) regulatory environment and (5) lease cancellation. Exhibit R-VNJ-13 at 8. According to Dr. Vander Weide, the combination of these factors results in a level of investor risk that exceeds the risks associated with providing local exchange service or the forward-looking risk of investing in S&P Industrials; hence, he argued that a greater return is required on UNE provisioning to ensure that VNJ is able to recover its forward-looking costs. However, while its witness meticulously depicted the risks associated with all of the aforementioned factors, VNJ only attempted to quantify what it described as the "lease cancellation" risk. Therefore, VNJ averred that its regulatory risk premium estimate of 3.95% is conservative. Exhibit R-VNJ-13 at 47.

To bolster its concept that a new regulatory risk premium is warranted to address lease cancellation risk, VNJ argued:

The lease contracts between Verizon NJ and its competitors require that Verizon NJ make large sunk investments to build telecommunications network facilities, while its competitors are able to cancel those contracts at any time, or renew their leases at lower rates when rates are reset.

[VNJ IB at 17.]

VNJ believes that the regulatory risk premium is necessary to compensate it for the additional risks it faces as a result of the FCC-imposed TELRIC framework, which requires that UNE rates be based on the cost of constructing a telecommunications network using the most efficient technology available, while CLECs possess a real option to either (a) cancel their UNE leases with VNJ and build their own facilities or (b) renew their leases at lower rates to reflect a supposedly lower cost of new telecommunications technologies. Exhibit R-VNJ-13 at 4.

<sup>27</sup> The cases decided since the FCC adopted the TRO on February 20, 2003 or released the order on August 21, 2003 are as follows:

Order Date	State	Docket/Case	WACC	Cost of Equity	Debt/Equity Ratio
06/30/03	Maryland	Case 8879/Order 78552	9.28	10.80	40/60
08/29/03	Virginia	FCC Arbitrated FCC DA-03-2738A1	12.95	14.22	20/80
11/13/03	Pennsylvania	R 00016683	12.37	14.75	34.5/64.5
01/16/04	New Hampshire	DT 02-110/24,265	8.20	9.82	55/45 (53% long-, 2% short-term debt/45% equity)
01/05/04	Indiana	Cause No. 42393	9.51	11.04	32/68

In order to assess the reasonableness of VNJ's lease cancellation regulatory risk premium, the Board must determine whether the risks described by VNJ are separate and distinct from the risks already reflected in VNJ's overall cost of capital. In order to accomplish this, the Board must evaluate if a revision to the UNE rate or the loss of a VNJ customer to alternative arrangements constitutes a recoverable, quantifiable risk.

The Board agrees with VNJ that CLECs have the option to build their own facilities or renew UNEs at lower rates if rates are reduced through state-level regulatory proceedings. VNJ has failed to consider that it may also be likely in a forward-looking environment that rates may be increased by the same process rather than reduced. In this instance, a lease cancellation would actually benefit VNJ. In this record, VNJ automatically assumes that each successive TELRIC study will result in lower costs and, hence, lower rates. While the Board agrees that the telecommunications industry has benefited from declining costs for many inputs, TELRIC cost models rely on a plethora of unique technical, financial and regulatory assumptions and inputs that may change in either direction in a subsequent state proceeding, especially should the FCC revise current rules.

More importantly, however, the Board recognizes that VNJ does not physically reconstruct its network to reflect the assumptions in the TELRIC model at the time of a UNE rate proceeding. The Board explicitly rejects VNJ's premise that "lease contracts between Verizon NJ and its competitors require that Verizon NJ make large sunk investments to build telecommunications network facilities..." VNJ IB at 17. The record clearly reflects that the FCC imposes no such obligation on ILECs in general or VNJ in particular to make investments or build facilities for CLECs.<sup>28</sup>

In reviewing VNJ's position, the Board agrees that it faces the risk of customers leaving its network for services provided by a competitor. Although VNJ has argued that such an occurrence will reduce its revenues while its investment and operating expenses will remain the same (VNJ IB at 20), the Board is unconvinced that this is a unique risk that merits a premium. It is the Board's opinion that the risks described by VNJ are a part of its business risk and represent a natural progression to a competitive environment and the Board would expect VNJ to make the necessary adjustments to its network and operations in the forward-looking market it describes.

In fact, VNJ's witness Vander Weide agreed that such lease arrangements, which allow the transitioning of customers off of the VNJ network constitute a business risk. Transcript of February 20, 2004 at 771. The Board believes that this business risk is, and has been, known to investors and is already reflected in investor decisions. Clearly, UNE competition, wireless service and the emergence of Voice over Internet Protocol ("VoIP") are all well known to the investment public and are cited in economic literature provided to investors. Further, it would be inappropriate to create a new regulatory risk premium to (a) increase VNJ's cost of equity to support a return on investment VNJ is not required to make and (b) compensate VNJ for lease risks where VNJ negotiates the UNE lease arrangements. Therefore, in determining the appropriate value for VNJ's UNE cost of equity, the Board **FINDS** it must entirely discount VNJ's regulatory risk premium concept. The 19.21% cost of equity implicit in VNJ's approach is, in the Board's view, excessive for the reasons set out above.

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<sup>28</sup> TRO at ¶¶645 and ¶¶648.



While VNJ significantly increased its recommendations in this case, the RPA and AT&T reduced their recommendations as compared with the prior UNE case. The RPA reduced its overall cost of capital recommendation by 170 basis points from 8.82% in the last UNE proceeding to 7.1% in this case. AT&T reduced its recommendation by 133 basis points from 9.54% in the last case to 8.23% in the current case. The majority of the reductions resulted from the significantly lower cost of debt proposals by each of the parties, which reflected changes in the United States economy between the time testimony was filed in the prior and present cases.

Selecting the appropriate return on equity is typically the most difficult element in establishing the WACC in a case. In this proceeding, the task is even more complicated given the need to establish a return on equity for a single relatively small UNE business within a much larger company—VNJ—that is a small part of a much larger holding company—Verizon Communications. The Board also notes that the FCC, in response to court decisions, is tasked to review the entire TELRIC pricing framework. Although it would be premature to predict the outcome of the FCC’s review, the Board is confident that its decision today is consistent with the intent of the FCC’s TRO clarification that now guides TELRIC pricing proceedings.

During the prior phase of the UNE proceeding, the Board discussed the difficulty of deriving an appropriate cost of equity on the basis that “there are no publicly traded companies exclusively providing UNEs,” and as such it had to “either utilize one of the approximation approaches proposed by the parties or develop [its] own.”<sup>29</sup> The Board also noted that “while Verizon NJ continues to argue that it faces ever-increasing market risks, those risks have not been borne out,” and the Board took that into consideration in deriving an appropriate cost of capital based on that record.<sup>30</sup> Subsequently, however, the FCC’s TRO clarified that state regulators should consider the risks of a fully competitive UNE market and determine a forward-looking cost of capital to arrive at appropriate TELRIC pricing model results.<sup>31</sup> Thus, based on this guidance, the Board’s decision on the appropriate cost of capital must now be modified to take into consideration future competition and reflect the risk of operating in a competitive market as the FCC clarified in August 2003.<sup>32</sup>

In setting the allowed rate of return on equity for regulated utilities in New Jersey, the Board evaluates the testimony of rate of return witnesses who attempt to create comparable groups of other utilities for which market prices are available. Using a variety of estimating models such as DCF, CAPM and Comparable Earnings, the witnesses produce a range of estimates for the appropriate cost of equity for the subject utility and each encourages the Board to adopt his/her recommendation. Establishing “comparability” is a difficult task, especially in industries where restructuring, mergers and diversification have caused a major difference in the “risk” of the parent holding company and unregulated subsidiaries and its regulated utility. In this proceeding, the

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<sup>29</sup> Final Order at 37-38.

<sup>30</sup> Id. at 38.

<sup>31</sup> TRO at ¶¶680-681.

<sup>32</sup> Ibid.

Board is faced with an even more difficult task. VNJ's "UNE business" is not a real firm with unique risk characteristics and market prices that are easily identified in a proxy group of companies.

The Board has evaluated the issue of finding comparable firms or proxy groups for New Jersey energy utilities. The most recent examples examined by the Board addressed were in the electric industry where vertically integrated utilities were transformed into "wires only" companies.<sup>33</sup> Efforts during the past decade to restructure the electric and gas industries have transformed traditional electric and gas utilities from fully integrated companies to essentially wires and pipes delivery companies with lower risk profiles than the risk profiles of the vertically integrated firms prior to divestiture or separation of generation and fuel acquisition operations. The restructured New Jersey energy utilities are somewhat unique in that they do not face the typical set of risks related to generation, affiliate and other non-utility activities that are reflected in the market prices of proxy companies. The inclusion of those proxy firms' risks result in upwardly biased estimates of the cost of equity in the positions advanced by energy utilities in their rate cases. Through its work in such cases, the Board has gained significant experience in determining a fair return on equity when testimony in a case relies on proxy groups that may not adequately approximate the risks of the petitioning company. The Board has decided three rate cases in the electric industry and two cases in the more traditional regulated water industry within the past year.<sup>34</sup>

In the case of the TELRIC UNE "firm," it is even more difficult to establish a proxy group of companies in order to estimate a cost of equity. The testimony in this UNE case relies on the market prices of companies that are significantly different from the UNE firm at issue in this case, given that no firms exist that have as their only line of business the provision of UNE services. Further, the VNJ UNE firm in this case does not trade on any financial exchange and therefore does not have any actual market prices for its equity that could be used to estimate its cost of equity using, for example, a DCF model. Overall, there are major, almost insurmountable barriers to effectively estimate a rigorous cost of equity for the UNE firm using traditional methodologies that rely on comparable firms or proxy groups and their associated market prices and estimated equity returns.

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<sup>33</sup> See I/M/O the Petition of Atlantic City Electric Company D/B/A Conectiv Power Delivery for Approval of Amendments to Its Tariff to Provide for an Increase In Rates for Electric Service, NJBPU Docket No. ER02080510; I/M/O the Verified Petition of Jersey Central Power & Light Company for Review and Approval of an Increase In and Adjustments To Its Unbundled Rates and Charges for Electric Service, and for Approval of Other Proposed Tariff Revisions in Connection Therewith, et al., NJBPU Docket Nos. ER02080506, ER02080507, EO02070417, ER02030173; I/M/O the Petition of Public Service Electric and Gas Company for Approval of Changes in Electric Rates, for Changes in Tariff for Electric Service B.P.U.N.J. No. 14 Electric Pursuant to N.J.S.A. 48:2-21 & 48:2-21.1; For Changes in Its Depreciation Rates Pursuant to N.J.S.A. 48:2-18 and for Other Relief, et al., NJBPU Docket Nos. ER02050303, ER02080604, EM00040253, ET01120830, EO02080610, EO01120832, EO02110854 and GR01040280; I/M/O the Verified Petition of Rockland Electric Company for the Recovery of Its Deferred Balances and the Establishment of Non-Delivery Rates Effective August 1, 2003 and I/M/O the Verified Petition of Rockland Electric Company for Approval of Changes In Electric Rates, Its Tariff For Electric Service, Its Depreciation Rates, And For Other Relief, NJBPU Docket Nos. ER02080614 and ER02100724.

<sup>34</sup> The Board decided two gas company cases in 2002, but the data underlying those decisions is somewhat stale as compared with the more recent electric and water cases discussed herein. See footnote 38 *infra* as to the electric and water cases.

VNJ's witness Vander Weide attempted to establish the comparability of VNJ's UNE business with a large group of diverse industrial companies. Exhibit R-VNJ-14 at 71. Our review of his analysis leads us to conclude that his proxy group does not qualify as an appropriate benchmark. Dr. Vander Weide's testimony that the S&P Industrials comprising more than 200 firms in an array of vastly different business enterprises serves as a better proxy for an ILEC UNE business than does a group of large regional and independent telecommunications firms facing multiple risks is unconvincing. The alternative evidence provided on the issue of comparable proxy groups provided by RPA witness Rothschild and AT&T witness Hirshleifer also reflect the difficulty of making the risk connection between the fictional stand-alone firm offering UNEs under TELRIC pricing and ILECs with diverse regulated and unregulated activities.

In general, estimating the cost of capital is part science and part regulatory experience. In this case, regulatory experience and the Board's close proximity to the setting of cost of capital in more traditional industries and restructured industries puts it in a position to exercise reasonable discretion in estimating an appropriate cost of capital for the UNE firm. Dr. Vander Weide's proxy group does not provide sufficient comparability to the UNE firm.<sup>35</sup> As noted by AT&T and MCI, there are no common threads in their business or financial risks that would make them the basis for imputing their cost of equity to the UNE firm. AT&T IB at 39 and MCI IB at 8.

Although AT&T's proposed comparable group of three regional Bell holding companies and two independent telephone companies is small and would not meet the traditional tests for comparability, at least they are telecommunications companies and some of these firms offer UNE services. However, the expected costs of equity derived by AT&T's witness, when compared to recent Board decisions in the energy and water industries, appears inadequate to reflect the level of risk faced by the UNE firm. The regulatory question becomes: how much of an increase in equity return is required to reasonably approximate the expected cost of equity for the UNE firm? There are no simple formulaic answers to that question.

The Board notes that there have not been any telephone rate cases litigated in New Jersey for more than a decade or in any other state jurisdictions since 1999.<sup>36</sup> Therefore, little to no guidance exists on current costs of equity in the telecommunications industry from recent New Jersey experience or from other jurisdictions. Furthermore, the UNE firm is unique and raises unique regulatory problems and unique cost-of-equity estimating problems.

The additional equity return the Board deems is required to properly compensate VNJ assuming a competitive market as per the FCC's TRO guidance, must therefore be viewed as an approximation based on the extensive experience of the Board in setting cost of capital in traditional industries and the Board's concern for providing an adequate

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<sup>35</sup> Dr. Vander Weide also employed a broad group of S&P Industrial firms as a proxy group in his testimony on behalf of VNJ in the prior UNE case. The Board's decision in that case similarly did not accept the broad group of dissimilar S&P Industrial firms as an appropriate proxy group for VNJ's UNE business and concluded that VNJ's "approach contains companies that offer goods and services that are far afield from the provisioning of UNEs." See Final Order at 38.

<sup>36</sup> "Regulatory Focus: Major Rate Case Decisions January 1990-December 2003," Regulatory Research Associates, Inc. January 2004.

expected equity return to the UNE firm. Here, the Board must consider how to adequately compensate the underestimate of AT&T's recommended equity return.

The Board **FINDS** that an increase to 12% cost of equity for UNE TELRIC pricing is reasonable to compensate VNJ for the risk it faces in provisioning UNEs in a competitive market. This cost of equity balances the model results of AT&T and VNJ (without VNJ's regulatory risk premium the Board rejects), given the Board's criticisms of each party's cost of equity analysis. There are no simple tests to validate the reasonableness of this estimate; however, the Board, by using this increased equity return, does recognize that the overall risk of providing UNE services is greater than the risk associated with traditional utilities. When compared to recent Board decisions in the electric industry, it amounts to an increased return on equity of between 225 and 250 basis points.<sup>37</sup> Further, given the current historically low inflation and interest rates as compared to those of prior periods (which were generally closer to normal levels), the approximately 200 basis point increase results in a sufficient and reasonable equity return. Compared to its decision in the first UNE case where a 10% return on equity was adopted by the Board for pricing UNEs, this decision reflects the Board's revised view of the risks facing Verizon in the provision of UNEs.

The parties' recommendations for the cost of debt component of the capital structure fall into a range of 4.65% to 6.26%. AT&T witness Hirshleifer based his 4.65% recommendation on his study of the weighted average yield-to-maturity of existing bonds publicly traded by Verizon and its subsidiaries almost all of which are rated A+. AT&T IB at 52. RPA witness Rothschild arrived at 6.06% by estimating what he believed it would cost VNJ to issue debt today using the cost of U.S. Treasury bonds and an interest rate spread between Treasury bonds and A2-rated corporate debt. Exhibit R-RPA-2 at 29. Dr. Vander Weide selected the 6.26% average yield-to-maturity on Moody's A-rated bonds and suggested that this was conservative because it excluded flotation costs associated with issuance of debt securities. Dr. Vander Weide also argued for the exclusion of short-term debt from cost of debt estimates stating that VNJ uses short-term debt for working capital and this is not an element within the investment component of UNE cost studies. Exhibit R-VNJ-13 at 44. After reviewing the record, the Board **FINDS** that the RPA and AT&T positions rely too heavily on debt calculations based on Verizon's current diversified business strength and do not fully capture the costs that a stand-alone UNE firm would face in a competitive market. The Board **FINDS** that the 6.26% rate estimated by VNJ best reflects a forward-looking cost of debt assuming a competitive market for a stand-alone UNE business.

The issue of the appropriate capital structure has also produced a wide range of options. Dr. Vander Weide recommended a capital structure containing 75% equity based on the average market capitalization of S&P Industrials and a group of telecommunications

<sup>37</sup> The following table summarizes rate case decisions made in 2003 and 2004 to date.

Company	Rate of Return	Return on Equity	Decision Date	NJBPU Docket
JCP&L	8.38	9.50	Jul-03	ER02080506
PSE&G (Elec.)	8.18	9.75	Jul-03	ER02050303
Rockland Electric Elizabethtown	8.02	9.75	Jul-03	ER02100724
Water	7.30	9.75	Feb-04	WR03070510
NJ American Water	7.91	9.75	Feb-04	WR03070511

firms over a five-year period. Exhibit R-VNJ-13 at 40-42. RPA witness Rothschild advanced the actual capital structure of the parent Verizon Communications containing less than 44% equity as the appropriate capital structure to employ in pricing VNJ's UNEs. Exhibit R-RPA-2 at 6. The growing level of competition between ILECs and CLECs, the FCC's guidance to assume a fully competitive UNE market, and the facts presented in the record, drives the Board's decision to choose, for UNE price setting, a capital structure that reflects a greater level of business risk than that used in our previous UNE decision. The Board believes that VNJ's proposed capital structure somewhat overstates the equity portion of the capital structure that a stand-alone UNE firm in a competitive market would maintain while the RPA's suggested structure understates what such a firm would target for equity in its capital structure. The Board **FINDS** that AT&T's proposed capital structure of 63% equity and 37% debt best represents an efficient forward-looking, long run capital structure for VNJ's UNE business and provides adequate recognition of the additional risk as compared with the prior UNE case.

In summary, after careful review of the voluminous record in this case, the Board **FINDS** that the cost of equity should be raised to 12%, the cost of long-term debt should be set at 6.26% as recommended by VNJ and the capital structure should be set at 37% long-term debt and 63% common equity as supported by AT&T. These changes support an overall WACC of 9.88% and better reflect the competitive nature of the UNE market. Thus, consistent with the FCC's recent guidance in the TRO, this decision incorporates future risk in two ways: by adopting a higher cost of equity than previously used and by adopting a major change in the capital structure, the debt/equity balance shifts from one that relied most heavily on debt to one that recognizes and gives much greater weight to the equity component.

## **DEPRECIATION**

### **Statement of the Issue**

Depreciation, which has been defined as the mechanism by which the investment in an asset is recovered over the life of the asset, has two components: the useful life of the asset and the rate at which the asset is depreciated over its useful life.<sup>38</sup> In its TRO, the FCC acknowledged that its Local Competition Order had only contained a limited discussion of the role of depreciation in setting UNE rates and had stated, "that properly designed depreciation schedules should take into account expected declines in the value of goods."<sup>39</sup> The FCC also noted in its TRO that "[s]imilarly [its] rules require the use of 'economic depreciation' but provide no additional detail."<sup>40</sup> Based upon the comments it received from the parties in the TRO, the FCC found that there appeared to be consensus among the parties that "depreciation should reflect any factors that would cause a decline in asset values, such as competition or advances in technology" and

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<sup>38</sup> TRO at ¶¶671, 686.

<sup>39</sup> Id. at ¶685.

<sup>40</sup> Ibid.

that it was necessary to provide clarification to states to assist them in establishing appropriate TELRIC-based UNE rates.<sup>41</sup>

In their comments to the FCC, the ILECs only addressed the useful life of the assets and urged the FCC to require the use of financial lives for the purpose of setting UNE rates.<sup>42</sup> The FCC declined to mandate the use of financial lives in establishing depreciation expense under TELRIC because the ILECs failed to provide “any empirical basis on which [it] could conclude that financial lives always will be more consistent with TELRIC than regulatory lives.”<sup>43</sup> In arriving at its decision, the FCC observed that:

[b]oth financial lives and regulatory lives were developed for purposes other than, or in addition to, reflecting the actual useful life of an asset. We cannot conclude on this record that one set of lives or the other more closely reflects the actual useful life of an asset that would be anticipated in a competitive market. Accordingly, state commissions continue to have discretion with respect to the asset lives they use in calculating depreciation expense.

[TRO at ¶ 688.]

While not mandating a particular method to establish the useful life of an asset, *i.e.*, financial or regulatory lives, the FCC clarified its rules pertaining to the rate over the useful life that an asset may be depreciated.<sup>44</sup> The FCC stated:

the various components of TELRIC rates should be developed using a consistent set of assumptions about competition. In calculating depreciation expense, therefore, the rate of depreciation over the useful life should reflect the actual decline in value that would be anticipated in the competitive market TELRIC assumes. In this way, our “economic depreciation” requirement is designed to replicate the results that would be anticipated in a competitive market.

[TRO at ¶ 689 (emphasis added).]

Based upon its findings, the FCC clarified that:

under [its] economic ‘depreciation’ requirement, a carrier may accelerate recovery of the initial capital outlay for an asset over its life to reflect any anticipated decline in its value. For example, an approach that accelerates cost recovery based on an index showing that equipment prices are declining over time may be consistent with our requirement to

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<sup>41</sup> *Id.* at ¶¶ 685, 689.

<sup>42</sup> *Id.* at ¶ 687.

<sup>43</sup> *Ibid.*

<sup>44</sup> *Id.* at ¶ 688.

use economic depreciation. Recovering more of the initial capital outlay for the asset in the early years would enable a carrier to recover less in later years, thereby allowing it to compete with carriers that have purchased new, lower-priced equipment in those later years.

[TRO at ¶ 690.]

In clarifying its rules, the FCC also acknowledged that the straight-line depreciation method has generally been used by state commissions and the use of an accelerated methodology may raise new concerns not previously addressed.<sup>45</sup>

In the context of this proceeding, VNJ generally argued that the Board should adopt the lives it uses for financial reporting purposes because they are intrinsically forward-looking and are updated frequently to reflect technological and other changes that affect the length of an asset's economic life.

The CLECs and the RPA, on the other hand, are of the view that the Board should not depart from the asset lives that are currently in effect. They claimed that the asset lives currently prescribed through the regulatory oversight process reflect a rigorous application of forward-looking principles and are inherently forward-looking and reflect technological and other changes that affect the length of an asset's economic life. As such, they argued that no change to the rates is warranted.

Based upon the foregoing, the Board will need to decide the appropriate useful lives and method over which the lives should be depreciated in accordance with the guidance provided in the FCC's recent TRO. In making its decision, the Board continues to have the discretion to determine whether to require use of Generally Accepted Accounting Principles ("GAAP") or regulatory lives.

### **Positions of the Parties**

In both its testimony and briefs, VNJ urged the Board to adopt its proposed financial depreciation lives as the best forward-looking estimates of the depreciation expense that the Company expects to incur in providing UNEs. According to the Company, the lives it proposed have been developed in accordance with GAAP and are relied upon by the Company for use in its financial reporting. VNJ IB at 51-52. As such, its lives are carefully reviewed and updated on an annual basis and subject to regulatory safeguards and market forces that provide incentives to report unbiased GAAP lives. VNJ IB at 52.

The Company also claimed that the GAAP lives best reflect both the existing TELRIC requirements and TRO clarification because they "account for the anticipated impact of future technologies and actual and anticipated competition." VNJ IB at 51-52. In addition, the Company maintained that its suggested lives appropriately account for "the future decline in economic benefits produced by its assets due to factors such as entry of competition, technological change, and the physical wearing out of its assets." VNJ IB at 54.

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<sup>45</sup> Id. at ¶691.

In describing the process it used in setting its lives, VNJ explained that it begins by using the NARUC Depreciation Manual for the retirement of an asset. According to VNJ, the factors produce asset lives that reflect both future competition and technological change as required when applying the TELRIC methodology. VNJ IB at 54. Once developed, VNJ asserts that the factors are assessed against, among other things, the Company's internal capital spending and budgets, engineering plans concerning the retirement of equipment, and levels of facilities-based competition.

The Company then applied what it described as a variety of industry benchmarks to ensure that the lives were in fact reasonable. VNJ IB at 54. To benchmark the lives, VNJ compared its results to what it described as its competitors, namely AT&T, MCI and cable television operators using similar technology in providing their services, and other ILECs such as SBC. VNJ IB at 54. As a final measure, the Company compared its results against the lives forecasted in industry studies produced by Technology Futures Inc. ("TFI"). Initial Testimony ("IT") of Dr. John M. Lacey ("Lacey IT") at 14.

VNJ also argued that the Board had correctly applied the TELRIC principles in its UNE rate decision in 1997 when it adopted GAAP depreciation lives proposed by the Company, only to reverse course in 2002.<sup>46</sup> In support of its position, VNJ cited specific references by the Board in the Generic Order<sup>47</sup> to the necessity to utilize GAAP lives to promote its policy goals of encouraging investment in new technology and the development of the telecommunications network infrastructure as part of Opportunity New Jersey ("ONJ"). VNJ IB at 50.

According to AT&T, VNJ's use of financial accounting lives does not comply with TELRIC or the TRO clarification because they are biased towards the shorter side and driven by corporate objectives and to protect shareholders. AT&T IB at 15. In addition, AT&T claimed that the Board should reject VNJ's reliance on both the use of TFI's projections and benchmarking using competitors such as CLECs and cable operators. According to AT&T, the use of depreciation lives used by these companies is subject to the same conservative bias as the lives proposed by VNJ because they are financial lives used for financial reporting purposes. AT&T IB at 20. AT&T argued that while well suited to protect investors, the use of financial lives is "ill designed to protect ratepayers." AT&T IB at 20. AT&T also noted that the FCC concluded in 1998 that the depreciation practices of IXCs and local exchange carriers are not directly comparable because they use different types of switches and cables. Likewise, the depreciation lives of CATV operations depend on factors (such as competition with competing multi-channel video programming distributors) that are absent from the local telephone business. AT&T IB at 21.

AT&T also urged the Board to reject VNJ's reliance on the TFI projections because the predictions are based on unreliable speculation and because TFI overlooked technological advances such as DSL which have the effect of increasing asset lives. AT&T IB at 14-15. In addition, AT&T directed the Board to previous statements made by the FCC which revealed its reluctance to rely upon the TFI predictions.<sup>48</sup>

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<sup>46</sup>Generic Order at 72-74.

<sup>47</sup> Ibid.

<sup>48</sup> AT&T cited to the FCC's 1998 Biennial Order, wherein the FCC concluded "that the TFI study fails to establish convincingly that current projection lives are inadequate." AT&T IB at 15. In the Matter of 1998 Biennial Regulatory Review-Review of Depreciation Requirements for Incumbent Local Exchange Carriers-



AT&T generally criticized the testimony of Dr. Lacey as “uninformed.” AT&T IB at 11. AT&T maintained that Dr. Lacey’s testimony only demonstrated a cursory knowledge of the development of the depreciation lives recommended by VNJ and was unable to explain the impact of technological changes on the depreciation lives. Instead, AT&T averred that Dr. Lacey relied on the analysis of TFI, whose projections have been rejected by the FCC and predictions have overlooked such developments as DSL technology. AT&T IB at 10-11, 13-15.

AT&T also recommended that the Board should continue to use the FCC lives previously set by the Board in 2002. According to AT&T, the approval of the FCC lives reflected proper forward-looking costing principles as well as the considerable experience of the FCC in setting depreciation rates. AT&T IB at 7.

In support of the FCC lives, AT&T’s witness Richard Lee discussed the development of the FCC’s ranges and its transition to forward-looking lives from what was once a historic perspective. According to Mr. Lee, the FCC’s current ranges were initially developed in 1995 based upon statistical studies using the most recent retirement patterns, company plans and current technological developments and trends. Rebuttal Testimony (“RT”) of Richard Lee (“Lee RT”) at 6-16 to 7-3. Essential to the FCC’s review was its new focus on the impacts of technological change and obsolescence. This new practice was a departure from the older methodology, which relied largely on historic experience. The 1995 ranges were updated in 1999 as part of the FCC biennial review. In that review, the FCC decreased certain switching lives to reflect increased competition and an upward trend in retirements of digital switching as shown in ILEC accounting data. Although ILECs advocated shorter minimum lives for other asset accounts, the FCC only lowered the minimum lives for digital switching, concluding that recent carrier accounting data and trends did not support reductions in other prescribed asset life ranges.<sup>49</sup>

AT&T also pointed to what it described as empirical evidence that the projection lives used by the FCC are forward-looking. Lee IT at 10. According to Mr. Lee, the level of VNJ’s depreciation reserves is an important indicator of whether the Company’s assets are under or over depreciated.<sup>50</sup> A declining depreciation reserve would be a reason for concern absent indications of accelerated growth in plant. A rising reserve, on the other hand, is generally positive, except in cases where the expected life of plant is decreasing, which might be a sign that accrual rates are too high. Lee IT at 10. Based upon his finding, Mr. Lee reported that VNJ’s reserves have been steadily increasing in the aggregate and was at a level of 57.8% as of January 1, 2003. Lee IT at 14. A look at individual switching and cable accounts revealed a similar trend.

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Review of Depreciation Requirements for Incumbent Local Exchange Carriers, Report and Order, CC Docket No. 98-137 (Rel. December 30, 1999)(“1998 Biennial Order”) at ¶16.

<sup>49</sup> 1998 Biennial Order.

<sup>50</sup> As cited by AT&T, depreciation reserves represent the accumulation of all past depreciation accruals net of plant retirements and represent the amount of a carrier’s original investment that has already been returned to the carrier by its customers. Lee IT at 10.

AT&T also argued that the recent Virginia Arbitration Order by the Chief of the FCC's Wireline Competition Bureau provided clear precedent for the adoption of the FCC's lives.<sup>51</sup> According to AT&T, the Virginia Arbitration Order provided a detailed analysis which rejected Verizon's assertions that the FCC's lives were not forward-looking and concluded that "[w]hile Verizon asserts generally that technological advances and increased competition justify the use of shorter lives, it provides no specific evidence to support its position."<sup>52</sup>

The RPA and MCI agreed with AT&T that VNJ has failed to support its specific underlying assumptions used to develop its GAAP lives. According to the RPA, VNJ has not adequately described or provided support for its specific underlying assumptions about competition, technology or other factors upon which the Company relies to develop its GAAP lives. RPA IB at 12.

MCI asserted that VNJ has not shown why the depreciation lives previously set by the Board in 2002 should be changed. MCI IB at 12. In defense of its position, MCI averred that the FCC lives are fully consistent with the principles of TELRIC and fully supported by the empirical evidence presented in this case. MCI IB at 12-13.

The RPA and MCI, like AT&T, asked the Board to rely on the Virginia Arbitration findings using the FCC regulatory ranges. RPA RB at 7-8; MCI IB at 14. The RPA and MCI echoed many of the same concerns and positions advocated by AT&T in urging the Board to reject VNJ's proposed GAAP lives. However, while AT&T and MCI were content with maintaining the status quo, the RPA asked the Board to increase depreciation lives above the existing mid-point to the mid-point between the most recently established Board lives and the high-end of the range established by the FCC. RPA IB at 15. The RPA stated that it has revised its recommendation upwards to reflect such factors as the use of DSL technology and elimination of certain unbundling requirements. In asking the Board to increase the lives, the RPA relied upon recently announced changes in the FCC's unbundling requirements promulgated in the TRO for such things as fiber and broadband services. RPA IB at 13. Alternatively, the RPA recommended that the Board reaffirm its earlier findings and retain the existing FCC mid-point lives. RPA IB at 1. In addition, the RPA claimed that either of the two approaches it advocated is consistent with the guidance set forth in the FCC's TRO.

As further support for its recommendations, the RPA referenced the FCC's TELRIC Notice of Proposed Rulemaking,<sup>53</sup> wherein the FCC continued to support the use of its regulatory ranges. RPA IB at 10. In the NPRM, the FCC stated:

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<sup>51</sup> I/M/O Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration, CC Docket No. 00-218; In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporate Commission Regarding Interconnection Disputes With Verizon Virginia Inc., CC Docket No. 00-251, Memorandum Opinion and Order (rel. August 29, 2003) ("Virginia Arbitration Order").

<sup>52</sup> Virginia Arbitration Order at ¶115.

<sup>53</sup> Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers, WC Docket No. 03-173, Notice of Proposed Rulemaking (rel. September 15, 2003) ("TELRIC NPRM").

asset lives prescribed by the Commission were intended to be forward-looking when they were established, and the Supreme Court specifically found that FCC-prescribed asset lives were a reasonable starting point for developing the depreciation expense to be used in setting UNE prices.

[Direct Testimony of Susan M. Baldwin (“Baldwin DT”) at 11, citing TELRIC NPRM at ¶95.]

The RPA also encouraged the Board to take note of language in the FCC’s TELRIC NPRM wherein the FCC conveyed its reluctance to rely on GAAP. According to the RPA, the FCC unequivocally expressed its concern that the reliance on GAAP lives might “result in excessive depreciation expenses.” Baldwin DT at 8. However, the RPA acknowledged that any future modifications that may result from the FCC’s pending TELRIC NPRM proceeding may result in a different conclusion. Baldwin DT at 8.

VNJ argued that the lives proposed by AT&T and the RPA were not forward-looking because they are based “arbitrarily on different points within the range of depreciation lives established primarily by the FCC in 1994, before the passage of the 1996 Act” and the advent of local competition. VNJ IB at 52. Since the lives were developed before the passage of the 1996 Act, the Company claimed that the lives cannot be consistent with the FCC’s clarification because they could not have properly considered “the impact of future competition and technological changes resulting from such competition.” VNJ IB at 52. VNJ also argued that both AT&T’s and the RPA’s recommended lives would not send the proper economic signals for encouraging investment in New Jersey’s network infrastructure. VNJ IB at 57. VNJ also claimed that AT&T’s depreciation reserve calculations incorrectly assumed a “steady state” (steady state in the theoretical example means that activity is continuous, not necessarily symmetrical or proportionate) which would be inappropriate in a forward-looking environment because the addition of plant to respond to full competition and technological change, combined with the retention of older plant nearing or beyond its depreciable life, can cause reserves to increase. VNJ IB at 62-63.

## **Board Discussion**

As discussed above, in the TRO, the FCC clarified, among other things, that “the rate of depreciation over the useful life should reflect the actual decline in value that would be anticipated in the competitive market TELRIC assumes.”<sup>54</sup> The FCC also clarified that a carrier may seek to mitigate the additional risk associated with new facilities and services by accelerating or front loading the costs, thereby allowing the recovery of more of the initial capital outlay for an asset in the earlier years and less in the later years and permitting ILECs to better compete with competitors that have purchased new, less costly facilities in the later years.<sup>55</sup>

Pursuant to the Board’s Order reopening this matter, VNJ, AT&T, and RPA each presented testimony setting forth their positions. VNJ advocated the use of financial lives based upon the GAAP lives it uses for financial reporting purposes. AT&T and the

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<sup>54</sup> TRO at ¶689.

<sup>55</sup> Id. at ¶690.

RPA generally recommended the use of regulatory lives, which are based upon the ranges developed by the FCC. MCI, through its brief, concurred with AT&T and the RPA.

In evaluating the positions of the parties, the Board must determine which approach best reflects the FCC's clarifications associated with technological changes and competitive markets. Based upon the FCC's clarification, the FCC's rules, as clarified in the TRO, require the Board to examine both existing and anticipated technologies that are used to provide the services that VNJ is required to unbundle and the impact that current and expected competition will have on the assets deployed by the Company. In order to accomplish this, the Board will need to evaluate whether increased competition that arises from both facilities-based and UNE competition, will cause VNJ to retire or invest in new facilities to keep pace with and compete with CLECs for customers.

While the FCC's clarification permits the parties to propose an accelerated recovery of assets, no party elected to do so in the within proceeding. Therefore, the Board is left with examining the actual proposed useful lives presented by the parties. In establishing its lives, VNJ argued that its GAAP lives were the "best available lives for computing the actual, forward-looking, anticipated economic life of assets." Lacey IT at 4. In support of its recommendation, VNJ averred that its GAAP lives properly accounted for the "anticipated impact of future technologies as well as actual and anticipated competition" as envisioned by the FCC. Lacey IT at 4. In arguing against the use of the FCC regulatory lives, the Company asserted that the lives are backward-looking because they are premised on an analysis that was performed prior to the 1996 Act and the advent of local competition.

Much of VNJ's position rests on its argument that GAAP lives are unbiased and the most reliable estimate of actual forward-looking lives because they are regularly reviewed and updated, subject to the Securities and Exchange Commission ("SEC") oversight, and benchmarked against its competitors' lives and projections developed by TFI. However, while asserting why it believed that its GAAP lives comply with the TRO requirements, the Company was unable to identify any technological developments that would hasten the retirement of assets or require it to accelerate its investment in new facilities in order to compete more efficiently against CLECs such as would warrant the use of shorter lives. In addition, the Company never produced any documents or evidence that it in fact had actual business plans to retire any assets in response to competitive developments. Rather, the Company asked the Board to accept its GAAP lives because they have been accepted by its auditors and not challenged by the SEC. While GAAP lives may be appropriate for financial reporting purposes, there is not a sufficient basis in the record upon which to conclude that they are also appropriate for establishing the actual useful life of an asset used by VNJ in supplying UNEs to CLECs.

Furthermore, in the 1998 Biennial Order, the FCC confirmed that its depreciation practices, although simplified to facilitate or reduce hurdles to effective meaningful competition, also have as their goal the protection of consumers and competition.<sup>56</sup> For example, during the biennial review proceedings, ILECs contended that regulatory safeguards, such as SEC safeguards, stock exchange listing requirements and annual external audits protect ratepayers against unjustified rate increases that carriers seek to implement through low end depreciation lives adjustment. The FCC disagreed and

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<sup>56</sup> 1998 Biennial Order at ¶1.

noted that the SEC has statutory duties that differ from the requirements imposed by the 1996 Act and were not designed to protect ratepayers, but designed to protect investor interests.<sup>57</sup> Based upon the foregoing, we believe that it is the Board's responsibility to strike a proper balance between corporate interests, ratepayer interests and competition.

It is clear from the FCC's clarification that the Board must consider the risks incurred by VNJ and the direct relationship of expected future technologies as well as actual and anticipated competition. The Board **FINDS** that, in presenting its case, VNJ has failed to provide convincing evidence that there are any competitive or technological changes in the foreseeable future that have not already been taken into account in the FCC lives currently utilized by the Board.

The Board also rejects VNJ's contention that the FCC lives are backward-looking. As recently as August 2003, in rejecting VNJ's contention that GAAP lives should be used in the Virginia Arbitration Order, the Chief of the FCC's Wireline Competition Bureau stated that the FCC "has used forward-looking asset lives for some time."<sup>58</sup> Much like in the Virginia Arbitration, VNJ has asserted that technological advances and increased competition justify the use of shorter lives (VNJ IB at 52); however, it provides no specific quantifiable evidence to support its position. The Board also rejects the TFI studies as unreliable. In arriving at this decision, the Board agrees with the finding in the Virginia Arbitration Order that "AT&T/WorldCom convincingly demonstrated that past TFI studies have been extremely aggressive in their projections, and that actual incumbent LEC retirements have proceeded at a much slower pace."<sup>59</sup> Similarly, for the reasons articulated by AT&T, the Board is unconvinced that VNJ's reliance upon depreciation lives of other carriers and cable operators is appropriate.

Therefore, based upon the record in this matter, the Board **HEREBY FINDS** that the existing depreciation lives previously approved by the Board in its Final Order issued on March 6, 2002, appropriately account for the risks and competition articulated in the TRO and shall continue to be used in developing UNE rates. The Board has found no factual basis in the record to conclude that any of the existing Board lives are out of step with the expected competitive developments that could reasonably be anticipated over the forward-looking timeframe assumed by this study.

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<sup>57</sup> Id. at ¶¶17, 48-49.

<sup>58</sup> Virginia Arbitration Order at ¶115.

<sup>59</sup> Id. at ¶118.

## **SWITCHING COSTS**

### **Statement of the Issue**

On January 23, 2004, the Board received the rebuttal testimony of Michael Baranowski submitted on behalf of AT&T. January 23, 2004 RT of Michael Baranowski ("Baranowski RT"). In his testimony, Mr. Baranowski alleged that the switching cost study submitted by VNJ on January 6, 2004 contained a major error in the development of vertical feature costs. According to AT&T, VNJ improperly weighted five (5)<sup>60</sup> of the twenty-three (23) vertical features in the vertical feature study resulting in an overstatement of the switch port costs by \$1.26 per month. AT&T IB at 72. In addition, AT&T's witness averred that portions of the VNJ switch study contained an incorrect switching technology mix. Baranowski RT at 6.

In response to AT&T's assertions, VNJ proffered the testimony of two witnesses; Marsha S. Prosini, who is familiar with the development of VNJ's switching cost studies, and David Garfield from Telcordia, the developer of the SCIS software used by VNJ.<sup>61</sup> VNJ's witnesses maintained that the model submitted in this proceeding produced reasonable cost estimates for vertical features and assailed AT&T's assertions as unfounded. VNJ IB at 68.

The Board must determine whether to consider the issues raised by AT&T, notwithstanding they were not identified in the Board's Order reopening this matter. If it determines to consider the issues raised by AT&T, the Board will then need to determine whether VNJ's switching cost study appropriately estimates the vertical features investments or if an alternative approach should be used. In addition, the Board will need to decide whether the switch study utilized the correct switch mix.

### **Overview**

In developing the switch costs, VNJ relied upon the Telcordia SCIS model. The model consists of a series of modules that are used to estimate the forward-looking costs of providing unbundled local switching to CLECs.

While the model produces results for a variety of switch port and related costs, for the purpose of this discussion, the Board will focus its attention on the cost development of a basic Port and the associated usage. However, the Board's ultimate determination will be applied to all switching rates impacted by its decision.

In the study filed by VNJ, it assumed the use of three separate switch technologies throughout its network: Lucent 5 ESS, Nortel DMS-100 and Siemens EWSD. While all of the switch technologies are capable of providing basic dial tone and feature

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<sup>60</sup> On February 6, 2004 VNJ submitted the Surrebuttal Testimony ("ST") of Marsha S. Prosini ("Prosini ST"). In that testimony, VNJ amended its switch cost study because it determined that two of the vertical features in question, Home Intercom and Warm Line, were not available across all three switch technologies. According to VNJ, the corrected algorithm results in a reduction of the port rate of \$.01. See Prosini ST at 8-9.

<sup>61</sup> See Prosini ST and February 6, 2004 ST of David Garfield ("Garfield ST").

enhancements, not all of the switches possess the identical features, functionality and cost characteristics. Therefore, the study models separate investment costs for each technology. However, of the three switch technologies being modeled, the Lucent 5ESS represents the majority of the switches assumed in the study, followed by the Nortel DMS-100 and then the Siemens EWSD.<sup>62</sup> The study assumed a forward-looking switch mix, hypothetically as follows:

<u>Switch Technology</u>	<u>Switch Percentage</u>
Lucent (5ESS)	60%
Nortel (DMS-100)	25%
Siemens (EWSD)	15%

In the study, investment costs are calculated for ten (10) originating features and 13 terminating features; however, as stated above, not all of the vertical features are available across the three switch technologies deployed in VNJ's network. In developing the cost estimates, VNJ first calculated the total cost per feature by switch technology in the SCIS/IN module. The resulting investment costs are transferred to an Excel spreadsheet where they are weighted by switch technology and converted to monthly charges through the application of a series of cost factors which allow the Company to recover, among other things, its forward-looking depreciation expense and cost of capital.<sup>63</sup>

The following hypothetical example illustrates how the costs are developed for a single vertical feature, Three-Way Calling, for which complete investment costs are available. The calculation traces the cost development from the SCIS/IN module to a final rate.<sup>64</sup> For the purpose of this example, we will assume that the SCIS/IN output results in calculated investment costs of \$5.50 for a 5ESS (Lucent) switch, \$4.60 for a DMS-100 (Nortel) switch and \$9.90 for a EWSD (Siemens) switch. The calculated investment costs are unweighted and represent the total investment cost for each feature assuming 100% deployment of that switch technology throughout VNJ's network. However, since VNJ does not rely on a single switch technology, it is necessary to weight the total feature costs by percentage of switch technology. This is accomplished by multiplying the 5ESS cost of \$5.50 by the 5ESS switch mix of 60%. The same calculation is performed for both the DSM-100 and EWSD technologies. The results are totaled to arrive at the hypothetical total weighted feature cost which represents 100% of the total weighted investment.<sup>65</sup> The chart below illustrates the weighting and resulting calculation.

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<sup>62</sup> Because the actual percentages and costs are claimed to be proprietary, hypothetical percentages and costs have been used herein for purposes of discussion and illustration.

<sup>63</sup> In addition to depreciation and cost of capital, the cost factors allow for the recovery of income and property taxes, marketing expense, network expenses and other support expense.

<sup>64</sup> It is necessary to use an example where complete cost data is available because complete cost algorithms are available and not subject to dispute.

<sup>65</sup> The total weighted feature costs are then multiplied by the cost factors to arrive at the total monthly fixed charge per feature.

Three-Way Calling	SCIS/IN Inv.	Switch Mix %	Weighted Investment
Lucent (5ESS)	\$5.50 X	60%	= \$3.30
Nortel (DMS-100)	\$4.60 X	25%	= \$1.15
Siemens (EWSD)	\$9.90 X	15%	= <u>\$1.485</u>
Total Weighted Investment			\$5.94

The same process is applied to the investment costs for each of the twenty-two remaining features developed in the study. After the application of the monthly cost factors, the resulting calculations are added to the monthly port charge along with two additional factors: common overhead and gross revenue loading ("GRL").<sup>66</sup>

### Positions of the Parties

In both its testimony and brief, AT&T asserted that VNJ's switch cost study contained a major error that overstated the monthly port charge because the Company incorrectly weighted the investments costs for certain vertical features. Baranowski RT at ¶¶2; AT&T IB at 72.

Based upon its analysis, AT&T believed that it had discovered an anomaly in the way VNJ calculated the vertical feature costs. According to AT&T, VNJ inappropriately assumed that there were investment costs associated with five vertical features<sup>67</sup> for each of the three switch technologies deployed by VNJ, when in fact no such investment costs were developed in the SCIS/IN module for one or more of the switch technologies.

In support of its position, AT&T provided its detailed workpapers demonstrating that there were no feature investments costs developed in the SCIS/IN module switch technologies. Based upon its findings, AT&T reasoned that VNJ failed to acknowledge that certain switch technologies did not require incremental investment for the features in question. Baranowski RT at ¶¶9.

In order to remedy the problem, AT&T proposed a reweighting of the actual investment costs by the switch technology mix assumed in the study. The example below illustrates AT&T's proposed methodology for the same hypothetical feature used in the above example, Three-Way Calling. In the example below, the only SCIS/IN-related investment cost is for a Siemens switch.

<sup>66</sup> Both common overhead (10%) and GRL (.004007) were previously approved by the Board in its Final Order.

<sup>67</sup> The initial features identified by AT&T were Outgoing Call Screening, Warm Line, Do Not Disturb, Home Intercom and Selective Call Acceptance. As stated above, VNJ amended its study to take into account that Warm Line and Home Intercom were only available on certain switch technologies. Home Intercom is not provided by the EWSD switch. Warm Line is not provided by either the 5ESS or the EWSD switch. Exh. R-VNJ-9 (Prosini), p. 8.



Three-Way Calling	SCIS/IN Inv.		Switch Mix %		Weighted Investment
Lucent (5ESS)	\$0.0	X	60%	=	\$0.0
Nortel (DMS-100)	\$0.0	X	25%	=	\$0.0
Siemens (EWSD)	\$9.90	X	15%	=	<u>\$1.48</u>
Total Weighted Investment					\$1.48

In the above example, the column labeled "SCIS/IN Inv." represents the output from the SCIS/IN module. Since there is no output data from the SCIS/IN module for the Lucent and Nortel switches, AT&T would assume that there is no incremental investment costs associated with those switch types, and weight the Siemens investment cost by its associated switch mix. See AT&T IB at 71-73; Prosini ST at 3-11 to 3-15.

MCI agreed with AT&T and urged the Board to adopt AT&T's position that the features in question should be set at a cost of zero. In addition, it maintained that the Board should take the necessary steps to correct any deficiencies that are uncovered in VNJ's model. MCI IB at 15-16. The Ratepayer Advocate asked the Board to acknowledge that the Telcordia model's treatment of certain vertical features was flawed and to make any adjustments to the rates interim subject to true up and refund pending completion of another proceeding. RPA IB at 40.

VNJ argued that it in fact incurs costs for both the Lucent and Nortel switches even though there is no actual SCIS/IN data upon which to rely. Prosini ST at 4-9 to 5-7. In such an instance, VNJ would make a simplifying assumption that the total investment cost for the Siemens switch (\$9.90) should be used as a proxy for the both the Lucent and Siemens switches as set forth in the example below. Prosini ST at 5-6.

Three-Way Calling	SCIS/IN Inv.		Switch Mix %		Weighted Investment
Lucent (5ESS)	\$9.90	X	60%	=	\$5.94
Nortel (DMS-100)	\$9.90	X	25%	=	\$2.48
Siemens (EWSD)	\$9.90	X	15%	=	<u>\$1.48</u>
Total Weighted Investment					\$9.90

Before the application of the cost factors, VNJ's methodology produces an investment cost of \$9.90 compared to AT&T's estimate above of \$1.48, for a difference of \$8.42. In defense of its methodology, VNJ argued that its switch cost studies utilized the same model previously approved by the Board and widely recognized as an industry standard. VNJ IB at 66. The Company also pointed out that while the same model had been used in prior proceedings, this is the first time that AT&T has questioned the methodology in New Jersey.<sup>68</sup> In addition, VNJ questioned whether this issue should be addressed in

<sup>68</sup> VNJ pointed out that AT&T, along with WorldCom, attempted to raise the issue in the Virginia Arbitration conducted by the FCC's Wireline Bureau. See VNJ IB at 76. However, the FCC's Wireline Bureau Chief declined to address the parties' allegations because it was found to be "procedurally inappropriate to raise for the first time in a compliance submission an issue that could have been raised during the hearing." See Virginia Arbitration Order at 38.

the context of this proceeding because the Board's Order reopening this case specifically limited the proceeding to two issues: depreciation rates and cost of capital.<sup>69</sup>

As noted above, VNJ argued that AT&T improperly modified the cost study by assuming that there were zero investment costs for certain vertical features. VNJ IB at 67-68. According to VNJ, the SCIS/IN model produced what it considers to be reasonable cost estimates for all features. While the Company readily acknowledged that Telcordia did not develop a specific cost algorithm for all vertical features for each switch technology, it contended that the absence of a specific algorithm is not proof that there are no costs associated with the provision of a feature for a particular switch technology.<sup>70</sup>

While algorithms are available for most of the features by technology, the Company explained that in certain instances algorithms were unavailable due to one of the following reasons:

- 1) Telcordia never attempted to obtain engineering or resource consumption information from the vendor;
- 2) Telcordia did not have a request from the SCIS user community to model that particular feature on that particular technology; or
- 3) The feature is not offered by the vendor.

[VNJ IB at 69.]

Therefore, when a cost algorithm was unavailable for a particular feature, the forward-looking cost for that feature was based upon the feature cost calculation(s) for the switch(es) where the cost information was available.<sup>71</sup> VNJ claimed that using the available costs is a reasonable surrogate for providing what it considers to be an identical feature over a comparable technology.<sup>72</sup> VNJ IB at 73-74, 77. In further support of its position, VNJ argued that its methodology is reasonable because it yields total feature investment costs for each of the three switch technologies that are roughly equivalent. Transcript of February 18, 2004 at 362-67, 370, 375-76 (Prosini).

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<sup>69</sup> Review Order at 3.

<sup>70</sup> Exh. R-VNJ-8 (Garfield), p. 5.

<sup>71</sup> Exh. R-VNJ-9 (Prosini), p. 6.

<sup>72</sup> Specifically, there are three vertical features that do not contain specific cost algorithms for all of the switching technologies in the cost study: Selective Call Acceptance; Outgoing Call Screening and Do Not Disturb. For Selective Call Acceptance, the SCIS/IN model has developed specific cost algorithms for two of the switch technologies (the 5ESS and DMS100 switches) but not for the third switch technology used in the study (the EWSD switch). In this instance, the SCIS/IN model re-weights the switch specific feature outputs for the 5ESS and DMS100 switches by the underlying mix of the 5ESS and DMS lines, effectively assuming that all are served by either 5ESS or the DMS100. For the remaining two features, Outgoing Call Screening and Do Not Disturb, the SCIS model contains a specific cost algorithm for the provision of those features over the EWSD switch technology. The SCIS/IN model assumes that when those same features are provided over the 5ESS and DMS100 switches, the cost of providing those features is the same as the cost calculated for the feature when provided over the comparable EWSD.

In addition, VNJ admitted that AT&T was correct that a portion of its switch study contained an incorrect switch mix. However, the Company estimated that the effect of the error is an increase in the feature investment costs of less than 1%. Prosini ST at 10. Based upon its reasoning, VNJ asked the Board to reject AT&T's position that the aforementioned features costs should be zero. VNJ IB at 78.

AT&T disagreed with VNJ's proxy approach and averred that even if VNJ's premise was correct, i.e., that there are costs associated with the vertical features for the switch technologies in question, the Company wrongly assumed that another technology is a good proxy. AT&T contended that VNJ lacked any basis for assuming that the cost of a feature for a particular switch technology can serve as a good proxy for the cost of the same feature from another technology. AT&T noted the cost of similar features could vary between switch technologies, and thus argued that using the proxy approach is inappropriate.<sup>73</sup> AT&T IB at 72.

## **Board Discussion**

After carefully reviewing the positions of the parties and the facts presented in the record, the Board is concerned that the underlying algorithms used by VNJ to estimate the investment costs for the three vertical features in question are inconsistent with proper cost allocation principles. In order to ensure that the resulting cost runs will produce lawful rates that are consistent with the TELRIC methodology, the Board FINDS that it has an affirmative obligation to address critical cost modeling and allocation issues in the context of this proceeding, even if they were not identified in the Board's initial Order reopening this case. Doing so in this limited context, is consistent with the Board's Order rejecting the parties' request to review all the inputs and assumption. In arriving at this conclusion, the Board is differentiating between inputs and assumptions used to estimate costs, such as fill factors, and specific cost assumptions, such as the cost of poles, and errors introduced by VNJ in the models, such as an inconsistent switch mix and the use of incorrect proxy costs.

According to the Company, it had to alter the way it weighted the investment costs for five (5) vertical features (Outgoing Call Screening, Do Not Disturb, Warm Line, Home Intercom and Selective Call Acceptance) in its initial cost study because actual investment data was unavailable from Telcordia. VNJ IB at 69-70.

Of the five (5) features, Outgoing Call Screening, Do Not Disturb, Warm Line, and Home Intercom are originating features and Selective Call Acceptance is a terminating feature. In its surrebuttal testimony responding to AT&T's allegations, VNJ acknowledged that its cost study mistakenly included investment costs for the Warm Line feature for both

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<sup>73</sup> In addition to raising the issue about whether another switch technology is a good measure of another technology's costs, AT&T was concerned that the technology used as the proxy was most often the most expensive technology and least deployed in VNJ's network. For example, in two instances, VNJ used the investment cost for the Siemens EWSD switch as a proxy for both the Lucent 5ESS and Nortel DMS-100 technologies. Based upon the record, the Siemens EWSD switch represents less than 10% of the actual switches in its network, but generally has a higher cost associated with it. AT&T suggested that VNJ limited its purchase of the Siemens technology because it sought to minimize its total switching costs by limiting its purchases of more expensive switches and therefore, it would be inappropriate to use a more expensive switch technology as a proxy for a less expensive one. AT&T IB at 73.

Lucent (5ESS) and Siemens (EWSD) switches, when in actuality it was only offered on the Nortel (DMS-100) switch. Prosini ST at 8. Similarly, the Company admitted that the Home Intercom feature was available for the Lucent (5ESS) and Nortel (DMS-100) switches, but not the Siemens (EWSD) switch. Prosini ST at 8. Based upon the newly uncovered information, the Company amended its switch cost study to correct the error. Prosini ST at 9 and Attachment B. The Company also admitted that it used an incorrect switch mix in several of the switching studies. However, the Company did not attempt to correct the problem on its own.

Staff has reviewed VNJ's newly revised cost estimates that take into account the revised cost algorithms for Home Intercom and Warm Line and has advised the Board that the two aforementioned features are now correctly weighted and no longer need to be addressed in the context of AT&T's allegation. Therefore, only the weighting associated with three vertical features, Out Going Call Screening, Do Not Disturb and Selective Call Acceptance remains in dispute.

Based upon the testimony of the VNJ witnesses, it only possessed actual cost data for the Siemens (EWSD) switch for Out Going Call Screening and Do Not Disturb (i.e., no actual data for the 5ESS and DMS 100). VNJ IB at 70. For Selective Call Acceptance, the Company only had actual cost data for the Lucent (5ESS) and Nortel (DSM-100) switches, but none for the Siemens (EWSD) switch. However, throughout the proceeding, the Company maintained that it still incurs costs for the features even where no actual cost data is available and therefore it was necessary for it to use the actual cost data in its possession as a proxy to estimate the unknown investment costs. Without actual cost data, AT&T, MCI and the Ratepayer Advocate asked the Board to assume that the vertical feature costs for the features where no algorithms are available, is zero.

After a careful and thorough review of both the AT&T and VNJ methodologies, the Board is concerned that both approaches fail to properly capture the appropriate feature costs for the switch technologies where no actual cost data is available. While the Board disagrees with AT&T and the other parties' contention that VNJ has made a "major error," the Board agrees with the parties that suggest that VNJ has not provided an adequate basis for us to rely on its proxy approach. The Board, therefore, **REJECTS** VNJ's proxy approach as unsupported. The Board is most troubled by the Company's use of a technology as a proxy that has limited deployment in its network and generally results in higher costs. Clearly, the use of such an approach tends to lead to higher overall switching costs. The Board also is unconvinced by the Company's argument that its approach yields total feature costs that are roughly equal. Based upon the data submitted in the record, properly modeled switching costs clearly vary based upon switch technology.

The Board also **REJECTS** AT&T's contention that the three vertical features should be assumed to have zero incremental cost. AT&T cannot dispute that the Company does, in fact, incur costs for the provision of the features even if Telcordia has not developed specific cost algorithms. While AT&T argued that the cost for the features in question are closer to zero than to VNJ's estimates, the Board **FINDS** that following the AT&T approach would surely result in costs that are not TELRIC compliant for the simple reason that it ignores costs that VNJ is allowed to recover.

In order to remedy the inherent inadequacies of both methodologies, Board Staff developed an alternative cost allocation that utilized the known feature costs for each switch technology. In its analysis, Staff examined the actual known cost data that was developed by the SCIS/IN model for both the originating and terminating features where complete cost data was available by switch technology for each feature being offered. Based upon the data, Staff developed two separate cost allocation factors: one for Originating Features and the other for Terminating Features. The resulting ratios were used to allocate the known feature costs by switch technology to the switch technology or technologies where actual cost data was unavailable. The Board **FINDS** that this weighting methodology is more accurate than AT&T's and VNJ's methodologies because it takes into account the fact that each switch technology has its own unique cost characteristics and recognizes that there is a variation in costs among the switch types utilized by VNJ. Moreover, it takes into account the variation in costs between both originating and terminating features by using a specific allocation factor for originating features and a separate allocation factor for terminating features.

The Board is also concerned that VNJ's model contains an incorrect switch mix in several of the Excel spreadsheets used in the switch study. While the impact is minimal, the Board is compelled to make the appropriate corrections to insure that the resulting rates are consistent with the Board-approved inputs. The actual calculations are included in Staff's spreadsheets, which will be made available to parties as set forth below.

## **ORDERING CLAUSES**

Based upon the foregoing, the Board **HEREBY**:

- 1) **FINDS** that the appropriate weighted cost of capital to be used in calculating UNE rates is 9.88%, which consists of a cost of debt of 6.26%, a 12% cost of equity, and a debt/equity ratio of 37% debt and 63% equity;
- 2) **AFFIRMS** its previous decision on depreciation lives, which established economic depreciation lives utilizing the mid-point of the FCC regulatory ranges;
- 3) **REJECTS** both VNJ's and AT&T's proposals to weight the vertical features cost for which there are no algorithms and **FINDS** that the SCIS cost model must be modified by applying Staff's recommended alternative weighting methodology;
- 4) **DIRECTS** Staff to provide the spreadsheets applying its methodology to the parties that actively participated and signed a confidentiality agreement in this proceeding upon the issuance of this Decision and Order;
- 5) **DIRECTS** that any comments relating to Staff's alternative methodology pertaining to switch costs shall be submitted to the Board and the parties that actively participated and signed a confidentiality agreement in this

proceeding no later than seven (7) days after the issuance of this Decision and Order;

- 6) **FINDS** that the switching cost study submitted by VNJ contained an incorrect switch mix in the Port and Usage studies, and **MODIFIES** the aforementioned studies to ensure consistency with the other switching modules utilized in developing switching costs;
- 7) **ORDERS** the following loop and switching rates based upon the approved inputs and modifications:

<u>2-Wire Loop</u>	
Density Cell 1	\$8.81
Density Cell 2	\$10.42
Density Cell 3	\$11.82
Statewide Average	\$10.32
Port Charge	\$2.72
Originating Usage	\$.001399
Terminating Usage	\$.001364

- 8) **DIRECTS** that within seven (7) days after the issuance of this Order, VNJ shall submit to the Board and all parties that actively participated and signed a confidentiality agreement in this proceeding, cost study runs (in both hard copy and electronic form) including the cost model runs and the associated output for all other rates not set forth above, utilizing the cost models previously approved by the Board and with the above inputs and modifications, and shall submit to the Board and all parties a compliance filing setting forth the rates with a verified statement signed by an officer of the Company certifying that the rates are true and accurate;
- 9) **DIRECTS** that any party that wishes to comment on VNJ's compliance filing must file its comments within fourteen (14) days of receipt of a complete copy of the compliance filing and the cost study runs. Any such comments shall be limited to whether the rates in the compliance filing accurately reflect approved inputs and modifications to the cost models as determined by the Board herein; and

- 10) **ORDERS** that upon submission of the compliance filing, the rates set forth therein will become effective on an interim basis, subject to true-up, upon the completion of the Board's review to confirm that the filing incorporates the correct inputs and modifications.

DATED: **May 7, 2004**

BOARD OF PUBLIC UTILITIES  
BY:

***SIGNED***

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JEANNE M. FOX  
PRESIDENT

***SIGNED***

\_\_\_\_\_  
FREDERICK F. BUTLER  
COMMISSIONER

***SIGNED***

\_\_\_\_\_  
CAROL J. MURPHY  
COMMISSIONER

***SIGNED***

\_\_\_\_\_  
CONNIE O. HUGHES  
COMMISSIONER

***SIGNED***

\_\_\_\_\_  
JACK ALTER  
COMMISSIONER

ATTEST:

***SIGNED***

KRISTI IZZO  
SECRETARY